COMPETITION COMMISSION

PRIVATE HEALTHCARE MARKET INVESTIGATION

Profitability analysis

Summary and conclusions

1. The purpose of this working paper is to set out our approach to and the results of the analysis of the profitability of the provision of private healthcare services by the seven largest private hospital operators in the UK (Relevant Firms).

2. Our profitability assessment is based on analysis of the financial and operational information submitted by the Relevant Firms in response to our off-the-shelf information request, financial and market questionnaires and supplementary information requests, as well as a draft property (land) valuation report provided to the Competition Commission (CC) by DTZ.[1]

3. In addition, this paper sets out our estimate of the weighted average cost of capital (WACC) of a typical UK stand-alone private healthcare provider, together with the analysis that we have done to reach this estimate.

4. The results of our current analysis indicate that the Relevant Firms are, on average, making returns in excess of the cost of capital[2]. The weighted average return across all of the private healthcare providers was 18 per cent for the period comprising the five financial years ended between January 2007 and June 2012. This compares with a WACC of around 9 per cent over the same period.[3]

5. We are considering the implications of these findings for our inquiry.

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[1] The draft report is incorrectly dated as 10 January 2013. The correct date is 31 January 2013.
[2] We note that this does not mean that all of these firms are making returns in excess of the cost of capital. The profitability assessment for each firm is set out in Appendices 4 to 10.
[3] Our profitability analysis is based on the financial information provided by the Relevant Firms, which have a variety of different year ends. Where we present ROCE figures for the industry as a whole, we have aggregated the results of the firms for their respective year ends. We do not consider that the differences in timing are likely to have a material impact on our profitability assessment. Appendix 11 sets out the periods that have been aggregated.

6. Further supporting information is set out in the appendices as follows:

Appendix 1 – Relevant Firms' WACC estimates
Appendix 2 – Risk free rate
Appendix 3 – Beta estimates
Appendix 4 – BMI profitability assessment
Appendix 5 – Bupa Cromwell profitability assessment
Appendix 6 – HCA profitability assessment
Appendix 7 – Nuffield profitability assessment
Appendix 8 – Ramsay profitability assessment
Appendix 9 – Spire profitability assessment
Appendix 10 – The London Clinic profitability assessment
Appendix 11 – Aggregation of financial information
Appendix 12 – Draft DTZ report

Section 1: Profitability methodology

Background and introduction

7. In November 2012, we published two consultation documents relating to the analysis of profitability in the market for private healthcare services (Consultation Documents).[4] These set out the statutory framework for market investigations as contained within the draft 'Guidelines for market investigations'[5] (the Guidelines), highlighting the purposes of such analysis in an inquiry and the framework within which the results are interpreted.

8. In addition, the Consultation Documents discussed how we proposed to apply the general approach to conducting profitability analysis described in the Guidelines to the market for private healthcare services.[6] In particular, the documents set out a detailed proposed methodology for *(a)* assessing the profitability of firms which provide private healthcare services; and *(b)* estimating an appropriate cost of capital for firms active in providing these services. This paper should be read in conjunction with the Consultation Documents. We will not reproduce that discussion in this paper.

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[4] www.competition-commission.org.uk/assets/competitioncommission/docs/2012/private-healthcare-market-investigation/121107_profitability_methodology.pdf, www.competition-commission.org.uk/assets/competitioncommission/docs/2012/private-healthcare-market-investigation/121113_wacc_methodology_final.pdf.
[5] www.competition-commission.org.uk/assets/competitioncommission/docs/2012/consultations/market_guidlines_main_text.pdf.
[6] This approach indicates that the CC will compare the returns made in an industry with the firms' cost of capital, estimated using the capital asset pricing model (CAPM).

9. We invited comments on these Consultation Documents as well as the provision of additional information as appropriate to further the CC's understanding of the market. We received a number of detailed responses from both the private hospital operators and the insurers.

10. In this section, we set out the main issues raised in response to the Consultation Documents and the methodology that we have adopted in carrying out the profitability assessment, together with the reasoning for our approach. These issues fall into four broad categories, as follows: *(a)* profitability measures; *(b)* scope of the profitability assessment; *(c)* valuation of assets; and *(d)* recognition of intangible assets.

Profitability measures

11. Two measures which may be used to assess profitability are the return on capital employed (ROCE) and the internal rate of return (IRR). One private healthcare provider suggested that rather than adopting the ROCE approach, as proposed by the CC, we should assess profitability using the IRR on the grounds that 'internal rate of return (IRR) and Net Present Value (NPV) are conceptually the correct methods for measuring profitability because they take into account the cash inflows and outflows of a business activity (rather than accounting revenues and costs, which include accruals and non-cash items)'.[7] Whilst theoretically the IRR is an appropriate method of measuring the profitability of a given project, we believe that the approach adopted by the CC to estimating the ROCE, not only closely approximates the IRR methodology, but it also has the advantage of avoiding the difficulties in identifying the cash flows of a given activity within a broader business, and is thus a more appropriate measure in the current case.[8]

[7] [✂] response to profitability methodology document, paragraph 5.1. [✂] also raised this point.
[8] [✂], [✂], [✂], [✂], [✂] and [✂] told the CC that they are unable to separate out the cash flows of their private hospitals from those of their other activities.

12. The CC's approach in using ROCE makes two main adjustments to the accounting information. First, capital employed is adjusted to reflect the modern equivalent asset value (MEA) of those assets required to deliver the service, with the MEA value measured as the depreciated replacement cost (DRC) of the assets.[9] As set out in paragraphs 29 to 48 below, we have sought to approximate the DRC of the assets by using the reinstatement cost of the buildings and the current value of land. This adjustment ensures that the ROCE estimates are both comparable across all the Relevant Firms and are economically meaningful, as the capital base measures the current value of the assets employed to the owner, rather than being distorted by historical cost accounting and the application of different accounting conventions (eg depreciation profiles). We have also made adjustments, where appropriate, for certain intangible assets (see paragraphs 57 to 77). Second, the change in the value of assets employed over the period of the analysis is passed through the profit and loss account as a 'financial capital maintenance charge'. This ensures that the full return to the business over the period is reflected in the profitability estimate.

Scope of the profitability assessment

Relevant Firms

13. We selected the largest seven private hospital operators[10] as the Relevant Firms for the purposes of assessing the profitability of the market.

14. A few parties raised concerns about potential 'survivorship bias' resulting from a focus on firms that have been successful in terms of remaining in the market and growing to be the largest operators. Their argument was that, by excluding the lower returns and/or losses made by unsuccessful firms, the CC's estimates of industry profitability would be biased upwards. In addition, a number also noted that the largest firms in the

[9] The DRC reflects the cost of replacing an asset with one based on modern efficient technology that provides similar service, adjusted for the proportion of the cost of the original asset that has been depreciated.
[10] These firms are: BMI (General Healthcare Group), Bupa Cromwell Hospital, Hospital Corporation of American (HCA), Nuffield Health, Ramsay, Spire Healthcare, and The London Clinic.

industry may have attained their current size due to superior efficiency, hence by not including smaller operators in the analysis, this might also result in an overestimate of profitability. For example, [✂] stated that:

> the largest firms in an industry may have grown to their current position due to their superior performance in terms of efficiency, which in turn may allow them to earn a profit which is higher than that of the smaller and less efficient suppliers in the industry. Therefore one cannot simply assume that the profitability of larger suppliers is representative of each player in the industry.[11]

15. Although, as noted in the Consultation Documents, we recognize the potential issue of survivorship bias in undertaking profitability analysis, we do not believe that it poses a material risk in this investigation. The seven largest private hospital operators account for just over 75 per cent of the total market for privately-provided healthcare services (excluding mental health) in 2011.[12] As stated in our Guidelines, we look to consider the profitability of firms that represent a 'substantial' proportion of the market, rather than the market as a whole. We note that the Relevant Firms include both commercial and not-for-profit businesses as well as businesses of varying sizes and operational models. Some of these operators have national chains, whilst others operate in one or two local markets only. The largest chain (BMI) contains over 60 hospitals, whilst both the Bupa Cromwell Hospital (BCH) and The London Clinic are single hospitals. Hence, we consider that a profitability analysis on the Relevant Firms should provide insight into competitive conditions across the industry as a whole.

16. The CC is also undertaking analysis to compare relative pricing levels across firms to understand whether differences in profitability result from superior efficiency in the

[11] The other parties that made a similar point were [✂] and [✂].
[12] *Laing's Healthcare Market Review 2012/13*, p34.

provision of services or the ability to achieve higher prices (or some combination of these factors).

Relevant activities

17. We proposed to assess the profitability of each of the Relevant Firms as a whole, without seeking to exclude the revenues and costs generated from either their NHS-funded activities or services such as cosmetic surgery, mental health or maternity care that are not directly within the scope of the inquiry.

18. The parties expressed differing opinions on the appropriateness of the proposed approach. [✂] stated that:

> Since hospital providers generally use the same premises, equipment and staff to provide services to privately- and publicly-funded patients, they do not split the costs or capital employed between these services. We agree that it is appropriate to analyse overall profitability rather than attempt to split out the profitability of a particular subset of customers among those using the shared asset base.

19. [✂] also argued that it was conceptually correct to analyse the operations of the private hospitals as a whole.

20. [✂], [✂], [✂] and [✂], on the other hand, expressed the view that it may be misleading to analyse publicly- and privately-funded activities together due to either differing margins earned on this work or varying proportions of NHS work across the private hospital groups.

21. In the first instance, we assessed the profitability of each of the Relevant Firms as a whole. This reflects the basis on which the firms assess their own performance and

avoids the potentially arbitrary allocation of costs and capital between privately- and publicly-funded healthcare services. However, we understand that NHS activity generates a lower margin than privately-funded activities. For example, [✂] told the CC that: 'It is generally recognised that NHS activity can be very low margin, while private work can be at higher rates dependent on the [insurer] tariff, the consultant fee and prosthesis used, for example'

22. As such, we note that the average ROCE across all activities may understate that earned on the services provided to privately-funded patients.

Relevant time period

23. In the Consultation Documents, the CC invited comments on its proposal to analyse the profitability of the Relevant Firms over the five financial years ending between January 2007 and June 2012.

24. [✂] and [✂] argued that the proposed five-year period did not reflect the full life cycle of the major assets in the industry and hence may not give an unbiased view of profitability in the longer run. [✂] told the CC that, following its acquisition of [✂] 'we invested heavily in its business, making improvements and introducing cutting edge technology, which has allowed us to make a reasonable long-term return on our investment'. [✂] proposed that the CC examine its profitability over a longer time period, for example ten years, to get a broader view of returns over time and provided us with information on its financial performance between 2000 and 2006.

25. Our Guidelines recognize that:

> [a]t particular points in time the profitability of some firms may exceed what might be termed the 'normal' level. There could be several reasons, including cyclical factors, transitory price or other marketing initiatives, and some firms earning higher profits as a result of past innovation or

> efficiency improvements ... The CC will therefore be interested in whether profits have exceeded the cost of capital over a sustained period (ie persistently high profits).[13]

We consider that our approach—of analysing the seven largest firms over a five-year period—reflects the overall average level of profitability of the industry rather than reflecting the position of any individual firm or the impact of any transitory factors. At this stage, we have not carried out a detailed assessment of [✂]'s profitability prior to 2007. However, we recognize that it may be necessary to consider a number of such factors, including past innovation, efficiency and the economic cycle, when interpreting the results of our profitability analysis on each of the Relevant Firms.

26. In addition, we note that in determining the appropriate period for analysis, we must balance the potential benefits of examining a longer time period with the practical difficulties of doing so. These difficulties include both the issue of interpreting the results of such analysis against a background of significant changes in the market structure over time, and the challenge of obtaining (comparable) data over the longer period. A number of the Relevant Firms have told us that they would not be able to provide financial information prior to 2007 due to changes in their ownership.[14] Equally, these changes in ownership have had a notable impact on the structure of the market, making a profitability assessment of the firms prior to 2007 less relevant for our overall assessment of the market for private healthcare services.

Valuation of assets

27. As noted in the profitability consultation document, paragraphs 51 to 60, we consider that the conceptually appropriate method to estimate the capital employed in an industry is to use the MEA value or DRC of the assets comprising the capital base.

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[13] Draft Guidelines, paragraphs 121 & 122.
[14] [✂], [✂], [✂] and [✂] all indicated that changes of control between 2006 and 2008 would make it difficult for them to provide detailed financial information for earlier periods.

Some parties argued that certain assets, in particular hospital buildings and intangible assets, should not be valued on this basis but rather at either their value-in-use (measured as the discounted future cash flows) or at their market value (estimated with reference to transaction values).[15] We do not consider such approaches to be appropriate for the purposes of profitability analysis, since they may effectively capitalize the ability of an asset to generate excess profits in the value of the asset. This risks a potential 'false negative' result.[16]

28. In the paragraphs below, we summarize the arguments put forward by the Relevant Firms in relation to the approach that should be adopted in determining the MEA (or DRC) values of their assets. The main categories of assets considered are land, buildings, equipment, working capital and intangible assets. See paragraphs 57 to 77 below, for a detailed discussion of the approach taken to recognizing intangible assets.

Land

29. In order to ascertain the value of land used by the Relevant Firms, we commissioned a report from DTZ.[17] In this section, we (briefly) set out the methodology adopted by DTZ for the purposes of this valuation, together with the views of some of the Relevant Firms on both the DTZ report and their land values and our current approach to estimating the value of land (and some buildings).

30. DTZ described its approach to the valuation as:

> The approach of the site appraisal exercise was in accordance with the RICS Appraisal and Valuation Standards 8th Edition and in particular VS 6 Valuation Standards and GN 6 Guidance Note, which is for the

[15] [✂] and [✂] both made both of these points.
[16] By valuing an asset on the basis of the cash flows or profit that it generates, it becomes impossible to identify any potential 'excess profits' using a ROCE approach as the capital employed figure will be inflated to reflect the profitability of the assets, such that the ROCE will not necessarily be significantly different from the cost of capital. By valuing an asset at its replacement cost, no such circularity is introduced into the analysis.
[17] DTZ draft report, January 2013. This report will be finalized once the CC has received and reviewed with DTZ all the responses from the Relevant Firms (and any other interested parties) on the draft report.

"Depreciated replacement cost method of valuation for financial reporting". In appraising the sites, the fundamental principle of the above method is that a hypothetical buyer for a modern equivalent asset would purchase the least expensive site that would be suitable and appropriate for its proposed operations.

31. The implications of this methodology are:

(a) sites were valued at the current cost of land in their existing location[18] unless that location was determined by DTZ to be unnecessarily costly, in which case, the value estimated was that of procuring 'the least expensive site with the appropriate characteristics for the proposed use';[19]

(b) alternative sites were generally of a similar size to the current site, had suitable transport links and served the same catchment area;

(c) adjustments were made to the size of sites where there was significant unused land on the existing site (eg park or woodland); and

(d) finally, the estimated values reflected what would be paid in the current market (ie as of December 2012) for a site that was able to achieve planning permission for a healthcare facility.

32. For sites in central London, DTZ considered that an entrant would need to buy and convert a building due to a lack of available plots of land. On this basis, DTZ valued the combined land and buildings of the Relevant Firms with reference to the current market price per square foot for commercial space.

[18] This cost being determined by the prevailing use of land in that area, ie residential, commercial, employment or agricultural.
[19] DTZ draft report, paragraph 2.3.

33. We received a number of responses to these valuations, with [✂] submitting a valuation report carried out by Altus Edwin Hill (AEH).[20] [✂] declined to comment on the DTZ report in isolation, indicating that it believed it would be more sensible to comment on the land valuation in the context of the broader profitability analysis given the inherent linkages between the two. [✂] provided a detailed response regarding land valuation on 26 February 2013. The CC has not yet had the opportunity to consider this. In the next section, we set out the main methodological issues raised by the Relevant Firms from which we have received submissions and the current approach we are taking to understanding the value of land employed.

Size adjustments

34. [✂] argued that where DTZ had determined that the site size was appropriate, no 'net-down' adjustment should be made to the gross acreage based on the assumption that a replacement hospital may occupy a more efficient site size:

> Reductions in overnight accommodation requirements that may have resulted from improved length of stay in recent years could be argued to have been more than offset by regulatory changes that establish minimum area requirements for various healthcare room usages including theatres, bedrooms, consulting rooms and associated utility accommodation.

[✂] raised a similar concern regarding the use of a net-down assumption, without the provision of evidence by DTZ to support the appropriateness of that assumption in each case.

35. In its draft report DTZ stated that:

[20] [✂] does not consider that the AEH report provides an accurate reflection of the value of its property and has submitted a commentary on that report to the CC.

> The net down figure was 15%, which reflected not only the potential that a replacement hospital may occupy a more efficient site size, but also that the land price which would be paid would be based on the net developable acreage.
>
> The net developable acreage would take account of local authority requirements for on-site open space, land buffers to the boundaries, on site foliage / trees etc. A land owner would not receive a land receipt for lost land as for any development, be it residential or commercial, there would be some land which could not be built upon or used for which no land receipt would be received.[21]

36. The net-down adjustment made by DTZ largely represents an adjustment to the price per acre, which has been quoted on the basis of the net developable acreage, rather than to the gross acreage required by a hospital. DTZ has confirmed to the CC that its approach does not assume that less space is required for a given hospital but that a purchaser would only pay for the proportion of a site that could be developed, which DTZ estimates to be 85 per cent of the gross land area. We have not received any responses from parties indicating that this assumption is unreasonable.

Identification of suitable alternative sites

37. [✂] and [✂] raised concerns regarding DTZ's approach of valuing alternative sites in the case where DTZ deemed the site upon which the existing facility was situated to no longer be appropriate. They noted that:

(a) it was not reasonable to assume that a hospital located centrally could be moved to another location in the town, or on the outskirts of the town, and still be equivalent from the point of view of serving the local market and/or catchment area;

[21] DTZ draft report, paragraphs 2.25 & 2.26.

(b) if DTZ believed an existing site was either commercially wasteful or an inappropriate use of resources, it should provide a detailed explanation of its judgement in this matter; and

(c) it was not clear that the alternative sites identified by DTZ would be (i) available for sale and/or (ii) able to receive the necessary planning consent for the purposes of running a private hospital.[22]

38. In addition, [✂] and [✂] argued that reliance could not be placed on the DTZ report as it had been carried out on a desktop basis rather than on the basis of individual site inspections and hence could have material errors.

39. We note that, despite raising these concerns regarding the approach adopted by DTZ, [✂] and [✂] submitted limited evidence supporting a different valuation of their plots of land.[23] The CC considers that the basic approach adopted by DTZ—of valuing the least expensive suitable site, either the existing site or a nearby alternative—is appropriate for estimating the MEA value of the plots of land. However, where the Relevant Firms submit evidence supporting a different valuation of the plots of land, either due to a more expensive site being necessary to serve a particular catchment area or due to higher local transaction values than reflected in DTZ's desktop valuations, we will take this information into account in forming a view on the land valuations to include in our analysis.

Central London hospitals

40. The approach taken by DTZ to the valuation of central London hospitals has been to estimate the cost of acquiring a replacement building rather than a plot of land, with the

[22] [✂] response to DTZ valuation report, 8 February 2013.
[23] [✂] provided some details of transaction values that the CC and DTZ will consider further.

price per square foot estimated on the basis of recent transactions, both commercial and residential.

41. [✂] submitted to the CC valuations carried out by AEH on its hospitals and other properties (comprising staff accommodation and office space). The valuations of staff and office accommodation were based on the open market value of these assets. We agree that this is the appropriate approach for these assets and have used the values provided by AEH in our analysis.

42. The hospital valuations provided by AEH estimated the DRC of the buildings as well as the value of land on which the hospitals were sited. The total value of the hospitals, comprising the DRC of the buildings plus the land value, was significantly below the market values estimated by DTZ, £[✂] million compared with DTZ's estimate of £[✂] million. [✂] told the CC that it did not believe that the DRC approach was appropriate since it did not reflect the potential alternative uses of land in central London, including for residential or commercial purposes. We accept that an operator would have to acquire a hospital building in competition with some alternative uses, although we do not believe that residential uses are directly comparable or relevant for the purposes of our analysis given planning restrictions. However, we consider that the DRC approach does provide an appropriate benchmark for value. As explained by French and Gabrielli:

> [o]ne of the principal tenets of DRC as an approach is that it assesses the value of a brand new building of the same property and then makes allowances for depreciation. It is therefore market value in an existing state ... A number of observers comment that DRC cannot be a market value as often the land is worth more if sold for redevelopment than it is in its current use, But this argument about "alternative use" is spurious

as, of course, there is a market value for existing use ... and a (probably different) market value for alternative use.[24]

43. Using the information contained in the AEH report, we calculated the un-depreciated replacement cost of the buildings plus the land values and compared this with the total market values estimated by DTZ. These figures were £[✂] million and £[✂] million, respectively. We understand that part of the difference between these two figures is likely to be due to discrepancies in the plot size used to estimate the value of one of [✂]'s buildings (with the lower, AEH figure using an underestimate). On the basis of this analysis, we have used the mid-point of these two estimates (£[✂] million) as the value of [✂]'s hospitals (land and buildings). We note that this does not reflect the obsolescence of the buildings, which is a very conservative assumption for the purposes of our analysis. See paragraphs 44 to 48 below, for more details on our approach to estimating a value for hospital buildings.

Owned hospital buildings

44. We considered whether the 'reinstatement cost' of buildings could serve as a proxy for the MEA replacement cost of buildings that are owned by the Relevant Firms. The reinstatement cost of a building is estimated by a surveyor for the purposes of insuring the building at an appropriate value. The estimate, which is usually based on an inspection of the site, includes the costs of clearing the site and rebuilding the existing hospital from the foundations upwards, as well as the various fees that would be incurred during such a construction project. We noted that the financial statement values could not be used as the basis for the MEA value as they reflected differing valuation methodologies.[25] We also asked the Relevant Firms for their views on the

[24] Nick French & Laura Gabrielli, 'Market value and depreciated replacement cost: contradictory or complementary?', *Journal of Property Investment & Finance*, Vol 25 No 5, 2007, pp515–524.
[25] For example, some firms' financial statements valued hospital buildings at their historic construction cost, whilst others had carried out a fair value adjustment on acquisition of the business, including an estimated market value for the buildings. Not only

remaining useful economic life (UEL) of these buildings as we were aware that a proportion of them were older than the 50 years usually used for building depreciation and hence that time period may not be appropriate.

45. [✂] noted that the use of reinstatement values was 'a relatively narrowly-focussed proposal' and that 'the impact of changes in hospital configurations is not a straight forward question'. We recognize that the reinstatement value of a building may not be a perfect proxy for its MEA value due to changes in hospital configurations[26] and the inclusion of costs, such as site clearance, that do not generally form part of the initial construction costs but which are relevant for insurance purposes. However, we consider that the well-established methodology for estimating reinstatement values, based on a site inspection, makes them the most reliable estimate of the replacement cost of a building for the purposes of our analysis. We also note that the parties responding to the Consultation Documents did not propose any alternative approaches to estimating the MEA value of the hospital buildings.

46. [✂] argued that the reinstatement values of the buildings should not be depreciated on the basis that 'each building's useful economic life is significantly longer than 50 years, in large part due to the levels of expenditure incurred on an on-going basis to maintain the properties in a fit and proper state for their on-going use as hospitals'. Other providers supported the view that the UEL of hospitals was significantly in excess of 50 years, although they were not able to provide specific estimates for their hospitals.

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were neither of these approaches in line with our preferred valuation methodology, they were also not comparable across the operators.

[26] Not all operators thought such changes were likely to be material. In its response on the profitability methodology document, [✂] indicated that the CC's view that changes in hospital configuration due to technological changes would not have a significant impact on the replacement cost of the building was 'a reasonable assumption'.

47. Although we consider that not depreciating the replacement cost of an asset is likely to result in its over-valuation,[27] we recognize that there are several characteristics of these assets that make the approach of using the 'reinstatement cost' of buildings as a proxy for their MEA value still the most consistent estimate of capital employed in the provision of private healthcare services. First, the age profile of the buildings employed in providing hospital services demonstrates that the UEL of a hospital that is appropriately maintained is significantly in excess of 50 years. We note that approximately 20 per cent of the hospitals operated by the relevant firms were constructed (at least in part) prior to 1960 and hence are more than 50 years old. We considered whether it would be appropriate to depreciate the buildings over a longer period, for example, over 100 years. However, we note that even using this assumption there would still be a number of buildings in use that would be fully depreciated, such that this assumption would not provide an appropriate estimate of the capital employed in the industry. Second, information provided by the Relevant Firms on their capital expenditure over the period indicates that they have high levels of recurring expenditure on the refurbishment of their hospitals, which may be expected to extend the life of the hospital buildings significantly. Therefore, we have used the (un-depreciated) reinstatement cost of the hospitals as their MEA value in our analysis.

48. We note that this approach has three further logical implications for our analysis. The first is that the value of refurbishments to owned hospital buildings is not recognized in the capital base, as this would result in double-counting, nor is any such expenditure deducted from profits.[28] This is because the value that we have used is the cost of reinstating the hospital building to new condition. Second, no depreciation is charged

[27] We note the difference between the DRC of [✂]'s buildings estimated by AEH, and the market value estimated by DTZ, as described in paragraph 42, was around £[✂] million on buildings with a market value of around £[✂] million.
[28] We note that it would also be logically consistent to add back the annual costs of maintaining these buildings that have been expensed in the Relevant Firms' accounts. We have not made this adjustment in our analysis to date. However, in due course, we may consider adjusting our analysis to exclude such expenditure in order to understand the impact of this on our results.

against the hospital buildings over the period of analysis, with only the change in the gross value of the asset being recognized as an expense/income.[29] Third, the values that we have used for buildings are conservative as regards our profitability analysis, ie they are likely to be at the upper end of any plausible range of values such that the returns estimated are likely to be lower than if we had used an alternative method for valuing the hospital buildings. We may in due course consider a range of profitability estimates including those based on DRC of buildings.

Rented hospital buildings

49. Buildings that are rented rather than owned would not usually be included in the capital base, since their cost to the business is already reflected in the rent expense.[30] However, [✂] put forward two separate arguments relating to such buildings. The first was that they had invested significantly in improving or refurbishing a number of their rented hospital buildings, increasing their value, and that this investment should be reflected in its capital base. We agree with this argument and have included these assets in the capital employed. As regards the approach to valuing these assets, we believe that their net book value as set out in the financial statements provides a reasonable approximation to the DRC.

50. The second argument put forward by [✂] was that where the level of rent paid had been agreed at the beginning of the relevant period and fixed for a number of years, the correct approach would be to adjust the rental payments to the 'current market rent', which would reflect the increased profitability of the hospitals over the period. However, the argument put forward by [✂] implies that the rental provisions agreed in May 2007 reflect the current market rent for its properties. We do not believe that this is necessarily justified. Our understanding of the 'replacement cost' of a rental

[29] We have smoothed this change in the value of the asset over the period such that a constant level of expense/income is recognized in each year.
[30] Capitalizing the value of rented buildings would result in a double-counting of their cost.

agreement is what would be agreed by a lessor and lessee in each year over the period. This is not necessarily the same as that which was agreed for the life of the lease at the beginning of the period. Whilst the 'replacement cost' of such an agreement may have changed over the intervening period, it is unclear to us whether the cost of the lease would have increased due to the higher earnings of the operating company, as argued by [✂], or decreased because of the financial crisis and the steep declines in interest rates and asset yields over the period. Therefore, the approach that we have taken is to leave the rents at the levels actually paid over the period.

Fully depreciated assets

51. We proposed to include the fixtures, fittings and equipment employed by the businesses in the capital base at their net book value in the Relevant Firms' balance sheets. [✂] and [✂] told the CC that this approach to estimating the DRC would understate their capital employed as they had a number of assets that were still in use but that had been fully depreciated in their financial statements. In addition, [✂] argued that fixtures, fittings and equipment should be included at their replacement cost rather than their net book value.[31] The CC asked these parties to provide further information on such assets. In response [✂] stated that '[a]fter subsequent review and consideration [✂] does not believe the results would be material to the CC's overall assessment'. [✂], on the other hand, argued that it had a significant number of assets still in use that were fully depreciated in its financial statements and provided details to the CC on these assets.

52. The approach of using the net book value of the equipment employed by the Relevant Firms seeks to proxy the DRC of these assets using a readily-available value. As a proxy it may suffer from a number of potential inaccuracies, including:

[31] [✂] suggested that this was the appropriate treatment as 'the cost of replacing these assets can generally be expected to increase over time (eg due to inflation or technological advances)'.

(a) the pattern of depreciation applied may not accurately match the rate at which certain assets actually depreciate in value, particularly where technical obsolescence has a significant impact on values, eg for scanning equipment;

(b) the period of time over which an asset is depreciated may not reflect its useful economic life; and

(c) the assets recorded in the fixed asset register may not reflect those being used to provide services to patients. This may be due to assets being fully depreciated but still in use or, on the contrary, the result of excess capacity which means that some assets are recorded in the accounts but are not needed to provide the quantity of 'output' produced by the business.

53. We have considered the potential impact of these issues on the value of the capital base of the Relevant Firms and consider that the use of the net book value, as reflected in the financial statements, is a conservative estimate for the purposes of profitability analysis, ie it is more likely to be an overestimate than an underestimate. The information that the parties have provided leads us to believe that there is excess or under-utilized capacity in the industry. For example, in its response to the market questionnaire (MQ), information provided by [✂] indicated that its theatres are operating at less than [✂] per cent utilization and its beds at just over [✂] per cent utilization. [✂] indicated that its theatres and consulting rooms were operating at around [✂] total capacity. We recognize that the nature of private healthcare services requires some spare capacity in the system (to ensure the prompt treatment of patients). However, we believe that the actual spare capacity may indicate that not all assets are efficiently employed. In our profitability analysis, we have not sought to reduce the level of capital employed to reflect the efficient utilization of assets. On the other hand, we do not consider that it would be appropriate to increase the capital employed to include those assets still in use that have been fully depreciated in the accounts of the businesses.

Seasonality of working capital

54. In the Consultation Documents, we proposed to use the year end net working capital position of the Relevant Firms as an estimate of their average working capital employed in operating their businesses. However, in their responses, [✂], [✂], [✂] and [✂] told us that working capital balances in the industry were seasonal and hence the year end position may not be representative of the 'typical' level of working capital. Therefore, in order to understand the 'typical' working capital position, we requested details of the monthly average net working capital position for each year over the relevant period.

55. The information provided by the Relevant Firms highlighted significant differences in the level of working capital employed by the various firms. Some had small, negative average working capital balances whilst others had relatively large positive average balances. We note that these differences do not appear to be related to the patient mix (insured, self-pay, overseas, NHS) of the Relevant Firms.

56. In spite of these differences in the level of working capital employed by the Relevant Firms, in our profitability analysis we have taken the (conservative) approach of not adjusting the average working capital figures provided. However, we may also consider the impact on our results of a 'sensitivity', which assumes that all Relevant Firms have a zero working capital balance, ie the most efficient working capital position.

Intangible assets

57. Some of the Relevant Firms argued that intangible assets should be valued at either their market value or their present value to the business, measured as the discounted stream of cash flows expected to be generated by the asset. For example, [✂] stated that '[✂]'s preferred approach to the valuation of intangible assets is to calculate the

total value of the business based on discounted future cash flows (i.e. an income valuation methodology) ... the intangible asset based is calculated by deducting the tangible capital base from the total valuation of the business'.

58. The CC does not accept this argument for the reasons set out in paragraph 27 above. The intangible assets included in the capital employed by the businesses have been valued at their (historic) cost. We believe that this historic cost is a reasonable approximation to replacement cost given the relatively short life span of these assets and the lack of technological change that might affect their relative prices.

Recognition of intangible assets

59. The CC Guidelines state that:

> the CC may consider the inclusion of certain intangible assets where the following criteria are met:
>
> (i) it must comprise a cost that has been incurred primarily to obtain earnings in the future;
>
> (ii) this cost must be additional to costs necessarily incurred at the time in running the business; and
>
> (iii) it must be identifiable as creating such an asset separate from any arising from the general running of the business.[32]

60. In response to the Consultation Documents, the Relevant Firms submitted a range of views regarding the type and quantity of intangible assets employed in their operations.

[32] Annex to the Guidelines, paragraph 13.

61. A number of the private hospital groups stated either that they did not have any intangible assets or that these were not material in the context of profitability analysis.[33] For example, [✂] notes that:

> We have no material assets of this type. The assets we have recently acquired (eg [✂]) have typically been in a distressed state caused by Insurer Network exclusion or profitability issues, and purchased goodwill has therefore been negligible.

Similarly, [✂] stated that:

> We also discussed the inclusion of intangible assets in assessing profitability. While this issue has no significant impact one way or the other on the profitability analysis for [✂] given that intangibles only form a very small part of the balance sheet I can see the validity of incorporating intangibles such goodwill arising from acquisitions when assessing a business's profitability.

62. The other firms argued that they had invested in developing and acquiring a range of intangible assets that were employed in generating returns for their businesses and which should, therefore, be recognized as part of the capital employed by their businesses. In the following paragraphs, we set out the principle categories of intangible assets suggested by these private hospital operators and our proposed approach to their recognition.

Purchased goodwill

63. [✂], [✂] and [✂] put forward the argument that some or all of the purchased goodwill held on their balance sheets should be recognized in the capital base as an intangible

[33] [✂] response to CC profitability methodology paper. [✂] told the CC that £5.5 million of purchased goodwill was created on acquiring [✂], which was subsequently written off. [✂]. [✂] noted that: '[✂] does not hold any intangible assets, however a hospital benefits from relationships with key consultants, GPs, Embassies, and private medical insurance companies. We have invested in attracting key consultants and building relationships with these stakeholders. However, we would be cautious in including this in the capital employed, particularly as the 'locking in' of some consultants by other hospitals has acted as a distortion to market efficiency.'.

asset. As set out in paragraphs 80 to 85 of the profitability Consultation Document, we believe that there is a risk that capitalizing purchased goodwill on an operator's balance sheet may effectively capitalize any 'excess profits' that are being generated.

64. Purchased goodwill is not a separately identified asset but rather is a balancing figure. It is the remaining, unallocated element of an acquisition price once all tangible assets and certain (although not necessarily all) intangible assets have been fair-valued and set against the price paid. The approach that we have taken is to recognize those intangible assets that meet our criteria for recognition, regardless of whether these have been separately identified in the companies' balance sheets but to exclude any remaining goodwill in line with our approach in previous CC market investigations.[34] This approach ensures that only intangible assets that meet our criteria for recognition are included in the estimate of the capital employed by the Relevant Firms.

IT systems and software development costs

65. [✂], [✂], [✂] and [✂] noted that they have invested in developing bespoke IT systems and software to help them manage their businesses. We accept that the costs of acquiring and/or developing such systems meet our criteria for the recognition of an intangible asset in that they represent an investment in the business incurred primarily to obtain earnings in the future; and such costs are additional to those necessarily incurred at the time in running the business. We had some doubt as to whether they create an asset that is separable from any arising from the general running of the business, however on balance we considered that this was a reasonable assumption in this case.

66. Hence, we have included the costs of acquiring and/or developing such assets at their cost. The parties proposed differing periods for the depreciation of such assets,

[34] For example, this was the approach taken in the inquiry into local bus services.

ranging from three years to seven years. In the interests of ensuring consistency in our analysis, all such assets have been depreciated over a four-year period.

Staff training and recruitment

67. [✂], [✂] and [✂] argued that the costs of recruiting (both medical and non-medical) staff and training them represented an asset for their businesses that should be recognized in the capital base. The operators told us that the training provided ranges from induction courses for new joiners, to continuing professional development for medical staff and on-the-job learning where experienced staff provide training to more junior staff members.

68. We recognize that in certain past investigations the costs of training staff (although not those of recruiting them) have been capitalized as intangible assets.[35] However, we do not believe that this would be an appropriate approach to take in this case due to the nature of the training provided. A review of the submissions made by the parties indicates that most training is aimed at either inducting staff into the hospital operators' specific businesses or maintaining their skill levels in line with professional requirements (CPD), with fundamental training being provided largely by the education system and the NHS. We consider that the former represents expenditure that is necessarily incurred at the time in running the business, rather than being in addition to it. Hence staff training and recruitment costs do not meet our criteria for recognition and have not been capitalized.

Relationships with patients, GPs and Consultants

69. [✂], [✂] and [✂] argued that they invested in developing relationships with GPs, consultants and patients in order to ensure a stream of referrals in the future and that these relationships should be recognized as an asset of the business. The categories

[35] For example, this approach was taken in the inquiry into local bus services.

of costs identified by the operators as contributing to the development of their relationships included, inter alia, marketing their facilities to GPs, patients and consultants, educational events for GPs, and investments in providing a quality service to patients. The estimates of the annual costs of such activity, and so the value of the asset, provided to us varied materially across the parties, which we believe is at least partly due to different approaches being taken to identify which costs serve to develop such relationships.

70. We recognize that the marketing of private hospitals to potential patients and clinical professionals represents an expense incurred with the aim of obtaining revenues in the future. However, we do not consider that these relationships with GPs, consultants and patients create assets that are separable from any arising from the running of the business since such relationships are generally either non-contractual or short-lived. We briefly set out our reasoning for this approach in the case of each type of relationship identified by the parties below.

71. We understand that the average contractual relationship between a hospital and a patient tends to be of short duration—in most cases lasting no more than a few days, ie the period during which a patient is admitted to the hospital for treatment. The patient (or his/her insurer) is subsequently invoiced for the treatment received with no continuing relationship with the hospital. In our view, this indicates that marketing expenditure directed at patients is a current expense of the business rather than investment in an asset that can be expected to generate returns over an extended period of time.

72. In the case of GPs and consultants, we consider that in the absence of any contractual obligations—either to refer patients or to practise at a hospital—these relationships do

not meet the criteria as assets separate from any arising from the general running of the business.

Regulatory approvals

73. [✂] and [✂] argued that healthcare providers must not only adhere to a broad range of regulations, but must also obtain specific approvals and/or licences in order to operate. These include registration with the Care Quality Commission and the Information Commissioner, as well as licences from the Human Tissue Authority and the Human Fertilisation and Embryology Authority, among others. These operators argued that the CC should include the costs of obtaining such approvals as an intangible asset on their balance sheets.

74. Having reviewed the information provided by the parties, as well as information from the various agencies listed, we understand that these regulatory approvals represent a recurring (annual) cost of the businesses rather than a one-off investment.[36] Hence, we have treated the costs of maintaining these approvals as expenses rather than a capital investment.

Clinical and administrative processes and know-how

75. Two private hospital operators argued that they had invested in developing clinical and administrative processes that allowed them to offer high quality treatment to patients as well as manage their businesses effectively. [✂] stated that '[t]his subset of costs includes (but is not limited to) the investments required to develop clinical care pathways, develop patient protocols, implement these pathways and protocols, train staff and develop ICT services'.[37] Similarly, [✂] highlighted the investment in the development of leadership expertise undertaken by its parent company and used by its

[36] For example, the CQC fee for the grant or subsistence of a CQC registration is between £8,500 and £150,000 a year depending on the number of sites; and the Human Tissue Authority charges annual fees which vary depending on the type of work done and the number of sites.
[37] [✂], submission to the CC, paragraph 3.11, 4 January 2013.

UK operations, stating that '[✂] UK benefits from the internally developed procedures, processes and systems which are developed by its overseas businesses, as well as from the input of senior executives'.[38]

76. The third criteria for the recognition of an intangible asset, set out in our Guidelines, is that the expenditure must create an asset 'separate from any arising from the general running of the business'. We recognize that over time a business will develop a range of internal processes for administrative, strategic and operational purposes since these are required for the day-to-day running of a business. However, it is not clear that there is an intangible asset of 'clinical processes' separate from the employment of appropriately trained medical directors, matrons and other clinical staff, who are responsible for developing and updating such processes on an ongoing basis. Similarly, management expertise is an asset (human capital) of a management employee, the cost of which to the hospital operator can generally be expected to be reflected in the employee's salary.

77. We have not included clinical processes or management know-how as an intangible asset in our analysis. However, to the extent that such intellectual property has been incorporated into the operators' IT systems, we have allowed the development costs of these systems to be capitalized on the basis that such systems represent a separable asset.

Section 2: Profitability assessment

78. This section sets out the results of our analysis of the profitability of private healthcare services. Details of the analysis for each of the seven relevant firms are set out in more detail in appendices 4 to 10.

[38] [✂] submission to the CC, paragraph 3.28(a), 11 January 2013.

79. Table 1 shows the weighted average ROCE for the relevant firms for each financial year between 2007 and 2011, inclusive.

TABLE 1 **Weighted average ROCE, aggregated figures for Relevant Firms**

per cent

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
ROCE	15.1	16.9	17.8	20.1	20.4

Source: CC analysis.

80. This analysis indicates that the average profitability of the Relevant Firms has improved over the period from 15.1 per cent in FY07 to 20.4 per cent in FY11, with an average of 18.2 per cent for the period as a whole.

81. In interpreting these results, we will take into account a number of factors, including but not limited to:

(a) the potential impact of the economic cycle and the changing mix of patients on the results of the private hospital operators; and

(b) differences in the levels of profitability of the 'for-profit' and 'not-for-profit' operators in the industry.

82. In addition, we may conduct some sensitivity analyses relating to the level of working capital employed by the businesses and/or the value of land and buildings employed by the operators.

Section 3: Cost of capital

Introduction

83. The approach to assessing profitability, as set out in our Guidelines, is to compare the profits earned with an appropriate cost of capital. In this section, we set out our estimate of the nominal pre-tax WACC for the private hospitals market in the UK, based on data for the period January 2007 to June 2012.

84. Our estimated range for the industry WACC for this period is 7.3 per cent to 10.0 per cent with a mid-point of around 9 per cent (see Table 2). Six of the seven largest private hospital groups (BMI, BCH, Hospital Corporation of American (HCA), Nuffield Health, Ramsay and Spire Healthcare[39]) provided the CC with WACC estimates, either for their UK operations or for their broader group. These are set out in Appendix 1.

TABLE 2 **CC estimate of UK private healthcare nominal pre-tax WACC**

		per cent
	Low	*High*
Nominal risk-free rate	3.5	4.5
Equity risk premium	3.5	5.0
Equity beta	0.88	1.10
Pre-tax Ke	9.0	13.4
Pre-tax cost of debt	5.5	6.5
Gearing	50	50
Tax rate	28	28
Pre-tax WACC	**7.3**	**10.0**
Mid-point estimate	**8.7**	

Source: CC analysis.

85. We consider the above range to be a reasonable estimate of the cost of capital that would have been faced by a hypothetical stand-alone UK private hospital operator.

86. The remainder of this section sets out our methodology and the analysis we have conducted. As set out in the cost of capital Consultation Document,[40] the basic approach taken to estimating the cost of capital for the private healthcare operators has been to use a WACC for the industry, with the cost of equity estimated using the CAPM and the cost of debt estimated with reference to both the actual interest rates paid and corporate bond yields over the period. This paper should be read in conjunction with the Consultation Document.[41]

[39] The London Clinic did not submit an estimate of its WACC to the CC. It considered that its charitable status and lack of shareholders made the calculation of a WACC problematic.
[40] www.competition-commission.org.uk/assets/competitioncommission/docs/2012/private-healthcare-market-investigation/121113_wacc_methodology_final.pdf.
[41] www.competition-commission.org.uk/assets/competitioncommission/docs/2012/private-healthcare-market-investigation/121113_wacc_methodology_final.pdf.

87. We received a number of responses regarding our proposed methodology for estimating the cost of capital. In the following paragraphs, we will set out the main points raised and the approach that we have taken in light of these responses, together with our reasoning.

Use of an industry WACC

88. A number of parties questioned whether it was appropriate to estimate a single WACC for the industry rather than company-specific WACCs in order to reflect the individual risk profiles of the private healthcare providers active in the UK.[42] In particular, they noted differences in the customer profile of the various operators, with some having a greater reliance on NHS or overseas customers.

89. The benchmark for our profitability analysis is the WACC of a hypothetical typical, UK stand-alone private hospital operator of a similar size to the relevant firms. We consider that the risk profile of one private hospital operator in the UK does not differ materially from that of another private hospital operator. This does not mean that there will not be some variation in risks across local markets and customer types but that all private hospital businesses are exposed to systematic risks to broadly the same extent. Financing costs and the ability to raise funds should also be similar across all operators based on risk profile. This is unaffected by an individual company's choice of capital structure. Consequently, we have estimated a single WACC for the private healthcare industry.

Use of an average WACC for 2007 to 2011

90. [✂] argued that 'the CC's suggested approach would not take into account the annual variation in the cost of capital facing each of the parties or highlight the variability in the cost of capital which has occurred over the 5-year period under consideration'. We

[42] [✂], [✂] and [✂] raised this issue.

recognize that there has been significant volatility in financial markets over the period being analysed, particularly as regards the gilt yields used to estimate the risk-free rate. However, this volatility has already been reflected in our approach, which has been to estimate a single WACC for the five-year period, recognizing the financial volatility experienced in the range of values estimated for each input to the cost of capital calculation. We do not consider that estimating a separate cost of capital for each year would provide additional useful information for our analysis.

Size premium

91. In their estimates of their cost of capital, [✂], [✂] and [✂] all specified a small company premium, with [✂] also adding a company-specific premium to its cost of capital. Their estimate of these premia ranged from 3 to 7.5 per cent in total.

92. As noted in the cost of capital methodology document, we consider the theoretical underpinnings of, and the empirical evidence for, a size premium to be inconclusive. We do not have any evidence to support the assertion that smaller operators in the sector face different systematic risks from the larger operators that might justify a higher beta value. In line with previous decisions, therefore, we have not applied a small company premium in our estimate of the cost of capital.[43]

93. We have not included any company-specific premia in our analysis since this is at odds with the basic hypothesis of the CAPM, which is that investors only receive a return for assuming risk which cannot be diversified away.

[43]See Bristol Water decision, http://webarchive.nationalarchives.gov.uk/20111108202701/http://competition-commission.org.uk/inquiries/ref2010/bristol/pdf/appendices_and_glossary_merged.pdf.

Impact of charitable status

94. [✂] drew our attention to the charitable status of two of the operators, Nuffield Health and The London Clinic, and their consequent exemption from corporation tax.[44] The impact of this is that these operators would require a lower pre-tax return in order to generate the same post-tax return as their competitors and so would have a lower cost of capital. The basis of our estimate of the WACC is that which would apply to a hypothetical stand-alone UK operator. We believe that the most consistent assumption to make is that such an operator is 'for profit' rather than a charity. However, we will take into account the fact that some operators may have a lower cost of capital than our estimate when interpreting the results of our analysis.

CC estimation of WACC

95. This section sets out the analysis that we have undertaken in order to estimate the components of the WACC calculation, which includes both generic components: (i) the risk-free rate; (ii) the equity risk premium (ERP) and (iii) the tax rate; as well as industry-specific components: (i) beta; (ii) cost of debt; and (iii) gearing.

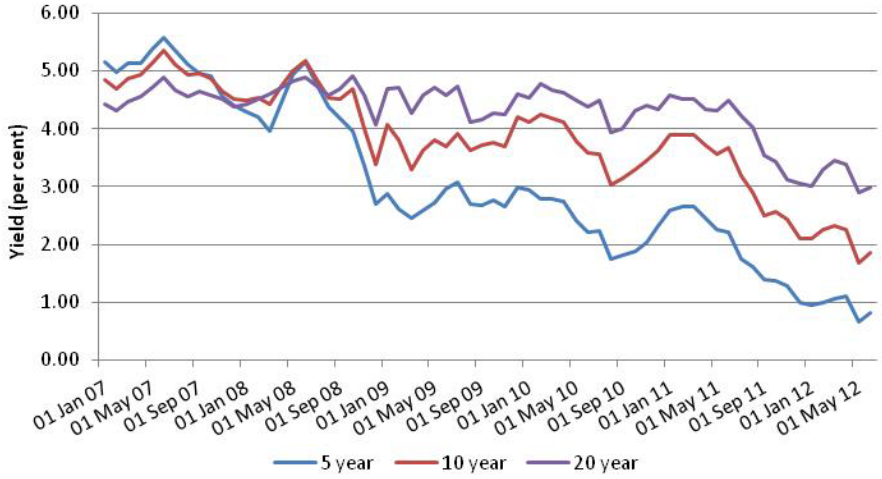
Risk-free rate

96. As set out in the cost of capital methodology paper we consider the nominal return on UK gilts to be the most appropriate basis for the nominal risk-free rate, as these instruments have negligible default risk. Figure 1 shows the yields on nominal gilts with maturities between 5 and 20 years.

[44] [✂] response to CC profitability methodology document.

FIGURE 1

UK Nominal gilt yields, 2007 to 2012



Source: Bank of England Monthly average yield on government securities.

97. The yields on nominal gilts have demonstrated a downwards trend over the period from between 4 and 5 per cent in 2007, to between 1 and 3 per cent in June 2012. Yields on five-year maturities have been the most volatile, ranging from around 5.5 per cent in mid-2007 to just under 1 per cent by mid-2012. In addition, there has been divergence between the returns on different maturities over the period.

98. Table 3 shows the average yields for each year and each maturity over the relevant period.

TABLE 3 **Average annual yields, UK gilts, 2007 to 2012**

per cent

	2007	*2008*	*2009*	*2010*	*2011*	*2012 (6 months)*
5 years	5.1	4.2	2.8	2.3	1.9	0.9
10 years	4.9	4.5	3.8	3.7	3.2	2.1
15 years	4.7	4.7	4.3	4.2	3.8	2.8
20 years	4.6	4.6	4.5	4.4	4.0	3.2

Source: Bank of England Monthly average yield on government securities.

99. The effects of the financial crisis and the response by external agents to the market, such as the Bank of England, have caused significant volatility in gilt yields. This effect

has been particularly pronounced for shorter yields but has also affected medium- and long-dated gilts. In previous market investigations, we have taken the view that long-dated yields, whilst in principle the most suitable basis for estimating the risk-free rate, are often affected by market distortions (associated, for example, with pension fund dynamics) which make them an inappropriate proxy for the risk-free rate.[45] Consequently, we have tended to use yields on shorter- and medium-term gilts as a proxy for the risk-free rate. However, we believe that the significant volatility over this period makes short-term gilts less appropriate as a basis for the risk-free rate. As a result, we consider that medium- and long-dated gilts may provide a better estimate of the risk-free rate.

100. We have used the yields on 10- and 20-year gilts as a basis for our judgement regarding the risk-free rate. Based on this information, the nominal risk-free rate has ranged between 2 and 5 per cent, with an average of 3.8 per cent for 10-year gilts and 4.3 per cent for 20-year gilts. On this basis, we have used a risk-free rate of between 3.5 and 4.5 per cent.

101. Appendix 2 sets out our analysis of comparable data for the estimation of the real risk-free rate. Based on index-linked gilts of 10- to 20-year maturities, the comparative real risk-free rate averaged around 0.8 to 0.9 per cent over the period, with a range of between zero and 2 per cent.

ERP

102. The ERP is the additional return that investors require to compensate them for assuming the risk associated with investing in equities rather than in risk-free assets.

[45] See CC analysis on local bus services market investigation, www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/inquiry/ref2010/localbus/pdf/cost_of_capital_working_paper.pdf.

The ERP cannot be directly observed from market data because the future yields on equities are uncertain.

103. There are two methods that can be used to estimate the ERP. The first is to estimate historical returns earned on equities and calculate the difference between this return and that earned on a riskless asset, ie the risk-free rate. The second is to estimate a forward-looking risk premium based on either the reported expectations of market participants or the ERP implied in asset prices at the start of the period. In the cost of capital methodology document, we stated that we would consider both approaches in our analysis. However, a subsequent review of the literature on this matter gives us reason to believe that forward-looking estimates may be less reliable than long-run historic averages. In particular, we note that the required ERPs reported by market participants or reflected in asset values at the beginning of the period may be distorted by current market sentiment rather than rational expectations.[46] Dimson, Marsh and Staunton (DMS)[47] note that '[f]or practical purposes, we conclude that for forecasting the long run equity premium, it is hard to improve on extrapolation from the longest history that is available at the time the forecast is being made'. Therefore, in our analysis, we have used long-run historical averages rather than forward-looking measures.

104. DMS have estimated the average ERP for a number of countries, including the UK, on the basis of equity and gilt yields over the last 112 years. These ERPs are estimated as the difference between the real return on equities and the real return on gilts over the period.[48] As DMS explain '[t]o understand risk and return, we need to examine long

[46] Estimating the implied ERP from asset prices during the period requires the assumption that equities are correctly priced in the aggregate. We believe that this is a particularly strong assumption over the relevant time period for our analysis in light of the financial crisis and consequent volatility in financial markets.
[47] Credit Suisse Global Investment Returns Sourcebook, 2012, p37.
[48] The formula used to estimate the ERP is: ((1+ Equity rate of return) / (1+ Riskless return)) – 1, which is approximately equivalent to deducting the riskless returns from the returns on equities. DMS categorize 'gilts' into two groups for the purposes of their analysis; shorter-dated 'treasury bills' and longer-dated 'treasury bonds'. The former have maturities of up to ten years, whilst

periods of history. This is because asset returns, and especially equity returns, are extremely volatile. Even over periods as long as ten or twenty years, we can still observe "unusual" returns'. On this basis, we have used the full 112-year ERP estimates in our analysis.[49] We have also followed the approach of DMS and used the geometric rather than the arithmetic mean on the basis that the geometric mean reflects the effect of compounding returns over time, which is relevant when investment horizons are longer than a single year.[50]

105. Table 4 shows the geometric and arithmetic average returns on equities, bonds and bills over the period between 1900 and 2011, together with the ERP implied by these returns.

TABLE 2 **Real returns on UK equities and government debt, 1900 to 2011**

		per cent
	Geometric mean	*Arithmetic mean*
UK real returns		
Equities	5.2	7.1
Bonds	1.5	2.4
Bills	1.0	1.2
Equity risk premium		
Bonds	3.6	4.6
Bills	4.2	5.8

Source: Credit Suisse Global Investment Returns Sourcebook, 2012, Dimson, Marsh & Staunton.

106. On the basis of this information, we have used an ERP of 3.5 per cent to 5 per cent in our estimate of the cost of capital. We consider that the upper end of this range makes allowance for the significant uncertainty and volatility faced by investors over the period of our analysis.

the latter have an average maturity of 20 years. The difference between 'bond' and 'bill' returns is referred to as the 'maturity premium'.

[49] *Credit Suisse Global Investment Returns Sourcebook 2012*, p7. The advantage of this approach is also that the larger sample size (ie number of years), increases the accuracy of the estimates—the standard errors of the estimations are reduced, narrowing the confidence interval.

[50] For example, if a stock returned 100 per cent in year one and then –50 per cent in year two, an investor would have the same value of investment at the end of the period as at the start. The geometric mean would indicate that returns were equal to 0 per cent, whilst an arithmetic mean would indicate a positive return of 25 per cent, calculated as (100% – 50%) / 2.

Tax rate

107. The corporation tax rates applicable over the period are set out in Table 5. For the purpose of estimating the WACC, we have used an average of the tax rates over the period of 28 per cent.

TABLE 3 **UK Corporation tax rates**

						per cent
2006/07	*2007/08*	*2008/09*	*2009/10*	*2010/11*	*2011/12*	*2012/13*
30	30	28	28	28	26	24

Source: HMRC.

Equity beta

108. The beta (β) of a share measures the riskiness of its returns relative to the rest of the market, or the exposure of the firm to systematic or 'non-diversifiable' risk. It is in return for assuming this risk that investors require a premium over the risk-free return.

109. The beta value of a listed firm can be directly estimated as the covariance between the stock's returns and the market's returns, divided by the variance of market returns. However, this approach is not possible for privately-held companies.

110. We have estimated a range of appropriate beta values for a stand-alone UK private healthcare operator on the basis of beta information from listed comparable companies (see Appendix 3). This group includes some of the parent companies of the firms active in the UK market. Table 6 provides a summary of our analysis on the beta values of comparable companies.

TABLE 6 **Comparable companies, beta estimates**

Company	*Unlevered beta*
Netcare	0.32
Ramsay	0.49
HCA	N/A
Lifepoint Hospitals	0.61
Tenet Healthcare	0.67
Rhoen Klinikum	0.35
Bangkok Dusit	0.56
Generale de santé	0.20
Life Healthcare Group Holdings	0.39
Mediclinic International	0.29
Universal Health Services	0.74
Community Health Systems	0.37
Apollo Hospitals Enterprise	0.48
Fortis Healthcare	0.56
Mean asset beta	**0.47**

Source: Bloomberg data.

Note: N/A = not applicable.

111. We recognize that the systematic risks faced by these private healthcare businesses may not be entirely representative of those faced by a stand-alone UK operator. In particular, we note that all the firms are listed on overseas markets and operate predominantly or wholly outside the UK. The existence of different public and private healthcare systems, as well as varying levels of economic and capital market development may result in these firms having systemic risk profiles that are not directly comparable to those of a UK operator. However, this analysis indicates that across a broad range of markets and business models, healthcare providers are generally less exposed to systemic risk than the market as a whole, with asset betas significantly below 1. In our view, this is also likely to be the case for a stand-alone UK private hospital operator.

112. We asked the private hospital operators to provide us with an estimate of their own, or their parent companies', WACC. The asset beta values used by the parties are shown in Table 7. These estimates have not been prepared on a consistent basis, with HCA and Ramsay providing estimates for their worldwide operations and the other operators using estimates based on comparable companies.

TABLE 7 **Private hospital operators' asset beta estimates**

	Low		*High*
BMI	[✂]		[✂]
BCH		[✂]	
HCA		[✂]	
Nuffield Health	[✂]		[✂]
Ramsay	[✂]		[✂]*
Spire	[✂]		[✂]
The London Clinic		-	
Average		**0.57**	

Source: Responses to the Financial Questionnaire.

*[✂] indicated that [✂] was its actual group-level asset beta (calculated from market data) but that it considered this to be biased by recent market volatility. We have excluded the upper value [✂] from the average value as no evidence was offered to support this figure.
The asset beta estimated by [✂] is for [✂] for (Q1 2012) rather than the group's UK operations.

113. The asset beta values used by the operators are similar to those of the comparable listed companies, with all estimates indicating that private hospitals experience significantly less volatility than the market as whole. The range of values is very large ([✂] to [✂]), with an average asset beta of 0.57.

114. Taking in to account our own comparator analysis suggesting a range of 0.20 to 0.74 with an average of 0.47 (see Table 6) and the views of the parties suggesting a range of [✂] to [✂] with an average of 0.57 (see Table 7), we consider that a range of 0.5 to 0.6 is appropriate for the asset beta in our analysis.

Cost of debt

115. In order to estimate the cost of debt for a typical UK stand-alone private hospital operator, we have considered information on the interest rates actually paid by the operators over the relevant time period. We believe that this benchmark is the most relevant for our analysis as all the operators in the UK are funded by bank debt rather than bonds. In the cost of capital methodology document, we indicated that we would take into account the redemption yields on UK corporate bonds between 2007 and 2011 in order to understand the cost of debt over the period. However, we do not believe that this information provides additional insight given that none of the relevant firms have such debt. We note that the cost of debt used in our analysis will reflect the

actual gearing of the operators rather than the 'typical' level of gearing assumed in our WACC calculation. As many of the operators are more highly geared than the 50 per cent we have used in our analysis, due to their private equity ownership, we believe that the use of their actual debt costs represents a conservative assumption.

116. Table 8 below sets out the effective interest rates paid by each of the operators in each year where they were able to provide this information. [✂], [✂] and [✂] were funded at a group level and provided estimates of their blended cost of debt for the group as a whole.

TABLE 8 **Effective interest rates paid by private hospital operators, FY07 to FY11**

per cent

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
BMI	[✂]	[✂]	[✂]	[✂]	[✂]
Nuffield Health	[✂]	[✂]	[✂]	[✂]	[✂]
Spire	[✂]	[✂]	[✂]	[✂]	[✂]
		Group funding costs			
BCH			[✂]		
HCA			[✂]		
Ramsay			[✂]		
The London Clinic			[✂]		

Source: Responses to the Financial Questionnaire.

Note: [✂], [✂] and [✂] funding costs are for the whole group and not just their UK private hospital operations.

117. The effective interest rates paid by the operators have varied from around 5 to 7.5 per cent, with [✂]. The interest rates paid by [✂] and [✂] declined between 2007 and 2011. There is no evidence that the costs of debt of the operators vary according to their size. On the basis of this information, we have used a cost of debt of between 5.5 and 6.5 per cent.

Gearing

118. As the relevant firms are privately-held, it is not possible to directly-estimate their levels of gearing.[51] We have, therefore, used the following analyses to inform our judgement of the appropriate gearing for a stand-alone UK private hospital operator:

(a) the gearing of comparable companies that are listed; and

(b) the operators' gearing used in their WACC calculations.

TABLE 9 **Gearing of listed private healthcare businesses**

per cent

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
Netcare	70.0	78.0	69.2	59.9	62.5
Ramsay	33.7	50.3	44.2	33.0	25.6
HCA	N/A	N/A	N/A	N/A	74.3
Lifepoint Hospitals	46.7	52.2	40.8	42.2	45.7
Tenet Healthcare	63.4	88.7	60.4	55.4	68.6
Rhoen Klinikum	19.8	27.3	16.5	21.2	23.7
Bangkok Dusit	21.2	32.8	24.4	11.0	9.9
Generale de sante	43.2	N/A	54.1	59.9	63.0
Life Healthcare Group Holdings	N/A	N/A	N/A	15.0	11.2
Mediclinic International	14.4	66.8	65.8	56.6	52.6
Universal Health Services	31.7	39.7	28.7	49.5	50.8
Community Health Systems	72.6	87.3	73.1	72.3	85.3
Apollo Hospitals Enterprise	7.8	4.0	14.6	12.7	9.6
Fortis Healthcare	N/A	17.3	22.9	41.3	12.7
Mean	**38.6**	**49.5**	**42.9**	**40.8**	**42.5**

Source: Bloomberg data.

Note: N/A = not applicable.

119. A review of the information on comparable companies indicates that average levels of gearing are between 40 and 50 per cent over the period. Gearing appears to be higher among firms operating in the USA and South Africa, than those with activities elsewhere in the world.

120. Table 10 sets out the gearing levels used by the operators in their WACC estimates.

[51] Some of the operators have listed parent companies in other countries but their UK operations are privately-held. See the cost of capital methodology paper, paragraphs 31 to 35 for further explanation of this point.

TABLE 10 **Gearing levels used by UK private hospital operators**

	Gearing %
BMI	[✂]*
BCH	[✂]
HCA	[✂]
Nuffield Health	[✂]
Ramsay	[✂]
Spire	[✂]

Source: Responses to the Financial Questionnaire.

*[✂]
Note: The gearing ratios quoted for [✂], [✂] and [✂] are for their group operations rather than their stand-alone UK private hospital operations.

121. On the basis of this analysis, we have used a gearing ratio of 50 per cent in our estimate of the WACC.

122. [✂] questioned the CC's suggested approach of not using a debt beta in our analysis. We remain of the view that a debt beta may be appropriate when the level of gearing in a business is sufficiently high that there is some doubt regarding the ability of the firm to repay its creditors in full. However, we consider that the level of gearing assumed for a typical stand-alone firm in the industry is not sufficient to create an appreciable risk of such an operator defaulting on its creditors, hence we have not included a debt beta in our calculations.

Relevant Firms' WACC estimates

1. Table 1 shows the Relevant Firms' estimates of their UK or group-level WACCs.

TABLE 1 **Relevant Firms' estimates of their UK or group-level WACC**

	BMI	*BCH*	*Nuffield Health*	*HCA*	*Ramsay*	*Spire*
Real risk-free rate	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Nominal risk-free rate	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
ERP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Small co risk premium	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Co specific risk premium	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Asset beta	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Equity beta	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Pre-tax Ke	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Pre-tax Kd	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Gearing	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Tax rate	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Pre-tax WACC	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

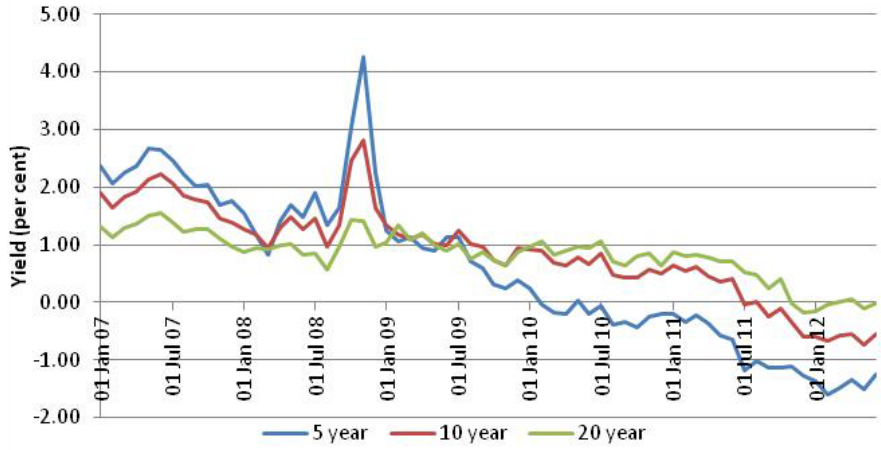
Source: Responses to the Financial Questionnaire.

Notes:
*[✂] describes this as an alpha factor, reflecting business specific risks including size premium, financing and forecasting risks. This was increased to adjust for the fall in the risk-free rate in 2011 which was considered not to be reflective of long-term market conditions.
1. The estimates provided by [✂] and [✂] are for their whole groups rather than for their stand-alone UK operations. All other estimates are for the UK firms only.
2. [✂] gave a real risk-free rate of [✂] per cent. The CC has assumed that this would give a nominal risk-free rate of [✂] per cent higher, ie [✂] per cent.
3. [✂] ranges are taken from their response to the Financial Questionnaire and a Deloitte report on the WACC (2009).

Risk-free rate

1. We have estimated the real risk-free rate with reference to the yields on UK index-linked gilts between January 2007 and June 2012.

UK indexed-linked gilts, real yields



Source: Bank of England 'UK implied real spot curve'.

2. This shows the same downward trend as for nominal yields, with all maturities providing a negative real yield by the beginning of 2012. The average real yields were 0.63, 0.91 and 0.85 per cent for 5-, 10- and 20-year maturities respectively.

Beta estimates

1. Table 1 sets out the beta values of a number of listed private hospital operators.

TABLE 1 **Beta estimates for listed private hospital operators**

Company	*Country*	*Equity beta*	*Debt/equity ratio*	*Effective tax rate (%)*	*Asset beta*
Netcare	S Africa	0.716	1.36	10.9	0.32
Ramsay	Australia	0.61	0.34	32.2	0.49
HCA	USA	N/A	2.35	24.1	N/A
Lifepoint Hospitals	USA	0.932	0.82	36.1	0.61
Tenet Healthcare	USA	1.316	1.64	42.1	0.67
Rhoen Klinikum	Germany	0.448	0.33	15.0	0.35
Bangkok Dusit	Thailand	0.612	0.11	21.4	0.56
Generale de Sante	France	0.436	1.57	27.8	0.20
Life Healthcare Group	S Africa	0.422	0.12	33.3	0.39
Mediclinic International	S Africa/ Switzerland	0.502	1.10	31.1	0.29
Healthcare Management Associates	USA				
Universal Health Services	USA	1.201	0.96	35.4	0.74
Community Health Systems	USA	1.317	3.64	30.1	0.37
Apollo Hospitals Enterprise	India	0.509	0.09	33.0	0.48
Fortis Healthcare	India	0.911	0.77	18.1	0.56

Source: Bloomberg data.

Note: N/A = not applicable.

BMI profitability assessment

1. The following tables set out the financial information used in assessing the profitability of BMI for the five financial years from 2007 to 2011. As BMI's year end is 30 September, this covers the period from October 2006 to September 2011.

TABLE1 **BMI financial results**

£'000

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
Revenue	[✂]	[✂]	[✂]	[✂]	[✂]
EBITDA	[✂]	[✂]	[✂]	[✂]	[✂]
Adjustments					
Central costs	[✂]	[✂]	[✂]	[✂]	[✂]
Rent add-back	[✂]	[✂]	[✂]	[✂]	[✂]
Intangible exp add-back	[✂]	[✂]	[✂]	[✂]	[✂]
FCM charge*	[✂]	[✂]	[✂]	[✂]	[✂]
Adj EBIT	[✂]	[✂]	[✂]	[✂]	[✂]

Source: BMI financial information and CC analysis.

*Financial capital maintenance charge. This replaces a depreciation charge and represents the change in value of all assets employed over the period.

TABLE 2 **BMI capital employed**

£'000

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
Land	[✂]	[✂]	[✂]	[✂]	[✂]
Buildings	[✂]	[✂]	[✂]	[✂]	[✂]
Equipment	[✂]	[✂]	[✂]	[✂]	[✂]
Intangible assets	[✂]	[✂]	[✂]	[✂]	[✂]
Net working capital	[✂]	[✂]	[✂]	[✂]	[✂]
Total capital employed	[✂]	[✂]	[✂]	[✂]	[✂]

Source: BMI financial information and CC analysis.

TABLE 3 **BMI ROCE**

per cent

	FY07	*FY08*	*FY09*	*FY10*	*FY11*	*FY07–FY11 average*
ROCE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

Bupa Cromwell Hospital profitability assessment

1. The following tables set out the financial information used in assessing the profitability of BCH for the four financial years from 2008 to 2011. Financial information was not available prior to 2008 due to a change in ownership of the hospital. As BCH's year end is 31 December, this covers the period from January 2008 to December 2011.

TABLE 1 **BCH financial results**

£'000

	FY08	*FY09*	*FY10*	*FY11*
Revenue	[✂]	[✂]	[✂]	[✂]
EBITDA	[✂]	[✂]	[✂]	[✂]
Depreciation	[✂]	[✂]	[✂]	[✂]
EBIT	[✂]	[✂]	[✂]	[✂]

Source: BCH financial information and CC analysis.

TABLE 2 **BCH capital employed**

£'000

	FY08	*FY09*	*FY10*	*FY11*
Equipment	[✂]	[✂]	[✂]	[✂]
Intangible assets	[✂]	[✂]	[✂]	[✂]
Net working capital	[✂]	[✂]	[✂]	[✂]
Total capital employed	[✂]	[✂]	[✂]	[✂]

Source: BCH financial information and CC analysis.

TABLE 3 **BCH ROCE**

per cent

	FY08	*FY09*	*FY10*	*FY11*	*FY08–FY11 average*
ROCE	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

HCA profitability assessment

1. The following tables set out the financial information used in assessing the profitability of HCA for the five financial years from 2007 to 2011. As HCA's year end is 31 December, this covers the period from January 2007 to December 2011.

TABLE 1 **HCA financial results**

£'000

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
Revenue	[✂]	[✂]	[✂]	[✂]	[✂]
EBITDA	[✂]	[✂]	[✂]	[✂]	[✂]
Adjustments					
Intangible exp add-back	[✂]	[✂]	[✂]	[✂]	[✂]
Rent add back	[✂]	[✂]	[✂]	[✂]	[✂]
FCM charge*	[✂]	[✂]	[✂]	[✂]	[✂]
Adj EBIT	[✂]	[✂]	[✂]	[✂]	[✂]

Source: HCA financial information and CC analysis.

*Financial capital maintenance charge. This replaces a depreciation charge and represents the change in value of all assets employed over the period.

TABLE 2 **HCA capital employed**

£'000

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
Land & buildings	[✂]	[✂]	[✂]	[✂]	[✂]
Equipment	[✂]	[✂]	[✂]	[✂]	[✂]
Intangible assets	[✂]	[✂]	[✂]	[✂]	[✂]
Net working capital	[✂]	[✂]	[✂]	[✂]	[✂]
Total capital employed	[✂]	[✂]	[✂]	[✂]	[✂]

Source: HCA financial information and CC analysis.

TABLE 3 **HCA ROCE**

per cent

	FY07	*FY08*	*FY09*	*FY10*	*FY11*	*FY07–FY11 average*
ROCE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

Nuffield Health profitability assessment

1. The following tables set out the financial information used in assessing the profitability of Nuffield Health for the five financial years from 2007 to 2011. As Nuffield Health's year end is 31 December, this covers the period from January 2007 to December 2011.

TABLE 1 **Nuffield Health financial results**

£'000

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
Revenue	[✂]	[✂]	[✂]	[✂]	[✂]
EBITDA	[✂]	[✂]	[✂]	[✂]	[✂]
Adjustments					
Rent add back	[✂]	[✂]	[✂]	[✂]	[✂]
FCM charge*	[✂]	[✂]	[✂]	[✂]	[✂]
Adj EBIT	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Nuffield financial information and CC analysis.

*Financial capital maintenance charge. This replaces a depreciation charge and represents the change in value of all assets employed over the period.

TABLE 2 **Nuffield Health capital employed**

£'000

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
Land	[✂]	[✂]	[✂]	[✂]	[✂]
Buildings	[✂]	[✂]	[✂]	[✂]	[✂]
Equipment	[✂]	[✂]	[✂]	[✂]	[✂]
Intangible assets	[✂]	[✂]	[✂]	[✂]	[✂]
Net working capital	[✂]	[✂]	[✂]	[✂]	[✂]
Total capital employed	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Nuffield financial information and CC analysis.

TABLE 3 **Nuffield Health ROCE**

per cent

	FY07	*FY08*	*FY09*	*FY10*	*FY11*	*FY07–FY11 average*
ROCE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

Ramsay profitability assessment

1. The following tables set out the financial information used in assessing the profitability of Ramsay for the five-and-a-half-year period from January 2007 to June 2012. When Ramsay acquired the business in 2008, it changed the year end from 31 December to 30 June. Hence the financial information is presented as an 18-month period (January 2007 to June 2008), followed by four financial years, FY09 to FY12.

TABLE 1 **Ramsay financial results**

£'000

	2007–2008 (18 mths)	*FY09*	*FY10*	*FY11*	*FY12*
Revenue	[✂]	[✂]	[✂]	[✂]	[✂]
EBITDA	[✂]	[✂]	[✂]	[✂]	[✂]
Adjustments					
Central costs	[✂]	[✂]	[✂]	[✂]	[✂]
FCM charge*	[✂]	[✂]	[✂]	[✂]	[✂]
Adj EBIT	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Ramsay financial information and CC analysis.

*Financial capital maintenance charge. This replaces a depreciation charge and represents the change in value of all assets employed over the period.

TABLE 2 **Ramsay capital employed**

£'000

	2007–2008 (18 mths)	*FY09*	*FY10*	*FY11*	*FY12*
Land	[✂]	[✂]	[✂]	[✂]	[✂]
Buildings	[✂]	[✂]	[✂]	[✂]	[✂]
Equipment	[✂]	[✂]	[✂]	[✂]	[✂]
Intangible assets	[✂]	[✂]	[✂]	[✂]	[✂]
Net working capital	[✂]	[✂]	[✂]	[✂]	[✂]
Total capital employed	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Ramsay financial information and CC analysis.

TABLE 3 **Ramsay ROCE**

	2007–2008 (18 mths)	*FY09*	*FY10*	*FY11*	*FY12*	*2007–FY12 average*
ROCE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

Spire profitability assessment

1. The following tables set out the financial information used in assessing the profitability of Spire Healthcare for the five financial years from 2007 to 2011. As Spire Healthcare's year end is 31 December, this covers the period from January 2007 to December 2011.

TABLE 1 **Spire financial results**

£'000

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
Revenue	[✂]	[✂]	[✂]	[✂]	[✂]
EBITDA	[✂]	[✂]	[✂]	[✂]	[✂]
Adjustments					
Intangible exp add-back	[✂]	[✂]	[✂]	[✂]	[✂]
Rent add back	[✂]	[✂]	[✂]	[✂]	[✂]
FCM charge*	[✂]	[✂]	[✂]	[✂]	[✂]
Adj EBIT	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Spire Healthcare financial information and CC analysis.

*Financial capital maintenance charge. This replaces a depreciation charge and represents the change in value of all assets employed over the period.

TABLE 2 **Spire capital employed**

£'000

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
Land	[✂]	[✂]	[✂]	[✂]	[✂]
Buildings	[✂]	[✂]	[✂]	[✂]	[✂]
Equipment	[✂]	[✂]	[✂]	[✂]	[✂]
Intangible assets	[✂]	[✂]	[✂]	[✂]	[✂]
Net working capital	[✂]	[✂]	[✂]	[✂]	[✂]
Total capital employed	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Spire financial information and CC analysis.

TABLE 3 **Spire ROCE**

per cent

	FY07	*FY08*	*FY09*	*FY10*	*FY11*	*FY07–FY11 average*
ROCE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

The London Clinic profitability assessment

1. The following tables set out the financial information used in assessing the profitability of The London Clinic for the five financial years from 2007 to 2011. As The London Clinic's year end is 31 December, this covers the period from January 2007 to December 2011.

TABLE 1 **The London Clinic financial results**

£'000

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
Revenue	[✂]	[✂]	[✂]	[✂]	[✂]
EBITDA	[✂]	[✂]	[✂]	[✂]	[✂]
FCM charge*	[✂]	[✂]	[✂]	[✂]	[✂]
Adj EBIT	[✂]	[✂]	[✂]	[✂]	[✂]

Source: The London Clinic financial information and CC analysis.

*Financial capital maintenance charge. This replaces a depreciation charge and represents the change in value of all assets employed over the period.

TABLE 2 **The London Clinic capital employed**

£'000

	FY07	*FY08*	*FY09*	*FY10*	*FY11*
Land & uildings	[✂]	[✂]	[✂]	[✂]	[✂]
Equipment	[✂]	[✂]	[✂]	[✂]	[✂]
Intangible assets	[✂]	[✂]	[✂]	[✂]	[✂]
Net working capital	[✂]	[✂]	[✂]	[✂]	[✂]
Total capital employed	[✂]	[✂]	[✂]	[✂]	[✂]

Source: The London Clinic financial information and CC analysis.

TABLE 3 **The London Clinic ROCE**

per cent

	FY07	*FY08*	*FY09*	*FY10*	*FY11*	*FY07–FY11 average*
ROCE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

Aggregation of financial information

1. Table 1 shows the periods that have been aggregated to give the profitability analysis for the industry as a whole.

TABLE 1 **Periods aggregated for the purposes of industry-level financial analysis**

	'Financial year' for aggregated results				
Firm	*FY07*	*FY08*	*FY09*	*FY10*	*FY11*
BMI	Oct 06–Sept 07	Oct 07–Sept 08	Oct 08–Sept 09	Oct 09–Sept 10	Oct 10–Sept 11
BCH	-	Jan 08–Dec 08	Jan 09–Dec 09	Jan 10–Dec 10	Jan 11–Dec 11
HCA	Jan 07–Dec 07	Jan 08–Dec 08	Jan 09–Dec 09	Jan 10–Dec 10	Jan 11–Dec 11
Nuffield Health	Jan 07–Dec 07	Jan 08–Dec 08	Jan 09–Dec 09	Jan 10–Dec 10	Jan 11–Dec 11
Ramsay	Jan 07–Jun 08	Jul 08–Jun 09	Jul 09–Jun 10	Jul 10–Jun 11	Jul 11–Jun 12
Spire	Jan 07–Dec 07	Jan 08–Dec 08	Jan 09–Dec 09	Jan 10–Dec 10	Jan 11–Dec 11
The London Clinic	Jan 07–Dec 07	Jan 08–Dec 08	Jan 09–Dec 09	Jan 10–Dec 10	Jan 11–Dec 11

Source: CC analysis.

Draft DTZ report

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DTZ
a UGL company

Provision of Land Consultancy Services

Prepared on behalf of
Competition Commission

COMPETITION COMMISSION

10 January 2013

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Job No/Ref: 130CWH00

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Contents

1 Scope of the Instruction

1.1 The Competition Commission (The Commission) appointed DTZ in October 2012 to provide desktop opinions of land prices on approximately 115 hospital sites throughout the UK. The site locations included some in Central London, with the desktop opinions used to assist in The Commission's analysis of the Private Healthcare Market.

1.2 To assist in our appraisal of the hospital sites, The Commission provided the following information in relation to each of the hospital sites:

- Address
- Site size (acreage and sq m)
- Building size (sq m)
- Date of construction

1.3 We provide a summary of the methodology and approach to the desktop instruction, together with the individual site desktops with corresponding commentary within the subsequent sections of this report.

2 Methodology

2.1 As set out within our tender proposal, given the sites were situated throughout the UK, the instruction was managed by the Residential team in Manchester, with DTZ's national office network including London, Birmingham, Nottingham, Bristol, Cardiff, Leeds, Newcastle, Edinburgh and Glasgow assisting in providing local knowledge on each of the hospital sites.

2.2 The scope of the instruction was to initially review the estimated cost of acquiring a site where the hospital facility is located. However if it was deemed that the site upon which the existing hospital facility was situated was considered no longer appropriate, due to it being either commercially wasteful or an inappropriate use of resources, an alternative site (if available) would be identified upon which the modern equivalent would located.

2.3 This alternative site is likely to be of a similar size and within a reasonable distance to the existing site, but will represent the least expensive site with the appropriate characteristics for the proposed use.

2.4 The approach of the site appraisal exercise was in accordance with the RICS Appraisal and Valuation Standards 8th Edition and in particular VS 6 Valuation Standards and GN 6 Guidance Note, which is for the "Depreciated replacement cost method of valuation for financial reporting". In appraising the sites, the fundamental principle of the above method is that a hypothetical buyer for a modern equivalent asset would purchase the least expensive site that would be suitable and appropriate for its proposed operations.

2.5 GN 6 Guidance Note also requires the surveyor to consider the following factors in the appraisal of the site.

- Is the property being appraised in a location now considered to be unnecessarily expensive? For example a city centre hospital which would now be more easily accessed and would better serve its catchment population from a suburban location
- Is the location no longer considered appropriate?
- Could the modern equivalent facility be delivered on a smaller site?
- Are there any physical or practical considerations which may dictate the location of the modern equivalent facility? For example, the need for the health facility to serve a particular geographic locality
- Is there a need for additional vacant land? This may be for expansion, safety or simply surplus purposes

2.6 Given we have been unable to determine land ownerships of sites which would be suitable for hospital relocation, our desktops are under the assumption that the sites are vacant and able to achieve planning permission for a healthcare facility (Use Class Order 2010 - C2). We will also assume reasonable market conditions and that there is a both a willing buyer and seller of the land.

2.7 Following the identification of the likely modern equivalent site and location, we would estimate the cost of acquiring that site for the use of a health facility in the current market and look to appropriate sales comparisons to inform our appraisal. Sites are not usually put to market as health care sites unless there is a planning obligation. Therefore alternative uses for the sites such as offices, industrial, residential or agricultural uses will be investigated to determine if they will be suitable for relocation.

2.8 Where a health centre is required within a particular location, this may mean competing against other uses. However, the overriding objective is to establish the lowest amount that a hypothetical prudent purchaser would pay to acquire a site for an equivalent development in a relevant location at the date of desktop.

Stage 1 – Mapping

2.9 Each of the offices assisting in the site appraisal exercise were provided with the full information The Commission provided on each of the sites within their geographical location.

2.10 No site inspections of the hospitals were undertaken. Location analysis and identification of alternative sites was undertaken via the use of Google Maps.

2.11 From the mapping exercise, the location of the hospital sites fell into three categories:

- Sites in urban / city locations
- Sites in suburban locations
- Sites in rural locations

2.12 Once the location was established, the reviewing surveyor would consider what a reasonable catchment area for an alternative site would be. In general factors which influenced catchment area included whether the location was urban / suburban or rural, transport communications together with the location of cleared land in the area, and whether this land could be provide a viable accessible site for a replacement hospital.

2.13 In general, for existing hospital sites situated in smaller villages and towns, the catchment area was deemed to be smaller, with the likelihood that an alternative site would be situated on the edge of the town / village boundary. This reflected the likelihood that the local planning authority would prefer to see a new hospital site on the edge of town, rather than in the middle of greenbelt. For urban hospitals, given the size of the built area is larger, the catchment area would be extended. However access and transport communication to the alternative site would also be considered.

Stage 2 – Alternative site size

Excess land for existing hospitals

2.14 From the review of existing hospital sites, it was identified in some cases the sites benefitted from excess land area, which was not used for staff / patient facilities nor parking. The excess land in general comprised either open space or woodland, with it likely that if the hospital was relocated to an alternative site, a smaller site could still accommodate the facilities which the existing hospital provided.

2.15 In some instances, if the local DTZ surveyor had past involvement with the respective hospital, or was aware that a smaller site could accommodate the hospital if it were to relocate, an assumption of the suitable size of site was made, with the desktop figure reported based on the revised lower acreage.

2.16 However, in some cases the local DTZ surveyor would not have any past involvement, or not be aware of the history of the hospital site. As such a method had to be adopted to provide an indication of which sites benefitted from excess land.

2.17 A building footprint to plot ratio was calculated. The building footprint was calculated by taking the individual building areas provided by The Commission for each hospital, and diving this by 2.5, which was an estimate of the number of storeys hospital buildings would comprise. In calculating the building footprint, it was assumed that most of the accommodation within the hospitals appraised would be across 2 floors, with some basement and some second floor accommodation provided, resulting in an assumption that the average hospital would comprise 2.5 storeys.

2.18 The building footprint to plot size ratio was then analysed against hospitals which have been recently built. This ratio figure is the number of times the overall site the hospital sits on could accommodate the building foot print. A low number would indicate the site is being used very efficiently, with little external / unused space. A high figure could mean the hospital had excess land which would not be required if it relocated and a modern equivalent facility was constructed.

2.19 Given many of the hospitals have been built in the past 15 to 40 years, it was assumed that hospitals which have been more recently constructed would reflect the most efficient use of space for building and plot, with the likelihood that upon relocation an older hospital would be built to modern equivalent standards.

2.20 We provide a summary of the hospitals we used for our analysis in determining the modern building footprint to plot ratio as follows:

Site No.	Hospital	Date Built	Building Footprint to Plot Ratio
68	Shawfair Park Hospital	2010	6.98
39	Thornbury	2008	8.73
115	The Lodge	2006	8.99
112	York	2005	5.61
85	Sussex Hospital	2001	7.75

2.21 The above table demonstrates a ratio for more modern hospitals in the 6.00 to 9.00 range.

2.22 Taking note of the above, for any hospital where the ratio was above 10 further analysis of the site upon which it sits was undertaken to determine whether there was any excess / unused land which would not be required if the hospital was to relocate to a new site.

2.23 Where it was clear that there was additional land which appeared to be open space / woodland, we reduced the alternative site acreage so it reflected a build footprint / land ratio closer to 10. However if it appeared the excess land was used for car parking / circulation space, the adjustment we made was lower.

Gross to Net Developable Acreage

2.24 A lower site area was assumed for the hospital sites which clearly benefitted from excess land, to which the appropriate rate per acre was applied. However for the hospital sites which were deemed to occupy a site which was appropriate in size, a moderate net down from the gross acreage was still applied in calculating site value.

2.25 The net down figure was 15%, which reflected not only the potential that a replacement hospital may occupy a more efficient size site, but also that the land price which would be paid would be based on the net developable acreage.

2.26 The net developable acreage would take account of local authority requirements for on-site open space, land buffers to the boundaries, on site foliage / trees etc. A land owner would not receive a land receipt for lost land as for any development, be it residential or commercial, there would be some land which could not be built upon or used for which no land receipt would be received.

2.27 For all sites above 1 acre in gross size we have deducted 15% from the gross site acreage. For sites comprising less than 1 acre no deduction has been made. It is assumed that such sites may fall below local authority thresholds for the provision of onsite open space, with their smaller size also resulting in more intensive use and less lost space.

Replacement Buildings

2.28 In some instances, particularly for central London hospitals, the only alternative sites for relocation comprised existing buildings, which would subsequently be converted for hospital use.

2.29 If such buildings were acquired, the price paid and indeed the manner in which comparables are analysed would be based on the Gross Internal Area, rather than Gross External Area.

2.30 In calculating the area of these buildings, the Commission has provided us with the summary of assessment for business rates for each of the central London hospitals. These summaries provide a breakdown of the accommodation within each hospital. Examining the Valuation Office Agency website, this confirms the rating assessment for hospitals is calculated on a Gross Internal Area basis. As such, we have used the areas within the rating list in our calculation of the building value.

Stage 3 – Applying the appropriate rate to the alternative site

2.31 Once a decision had been made as to the size which an appropriate replacement site / building would comprise, together with where the most likely replacement site would be located (following review on Google Maps), the appropriate rate for alternative land / building use was applied.

3 Alternative Site Prices

3.1 As already noted the approach to the appraisal was to estimate the cost of an alternative site suitable for a modern hospital facility, with the alternative site representing the least expensive location with the appropriate characteristics for the proposed use.

3.2 From the location of the hospitals, alternative sites in general fell into four categories:

- Replacement Buildings
- Employment Land
- Agricultural Land
- Residential Land

3.3 For the majority of hospitals, alternative sites were identified, which fell into one of the three land categories. However most notably for central London Hospitals, particularly those situated within Westminster, no alternative cleared sites were identified in the area. As such if the existing facility was to move to an alternative location, it is likely this would comprise acquiring an existing building and converting it for hospital use.

3.4 In terms of the majority of the hospitals where alternative sites were available there were a number of general trends identified. For hospitals situated within urban locations, alternative land identified commanded either employment or residential land prices. For suburban areas, alternative land commanded residential or agricultural land plus premium prices, whereas for hospitals in rural locations, the general assumption made was that agricultural land plus premium prices would be paid.

3.5 We provide specific comments in relation to the achievable prices and assumptions made for the above four categories as follows:

Replacement Buildings

3.6 The majority of instances where replacement buildings were identified to be the only alternative for hospital relocation were in London, particularly in Westminster.

3.7 However in some instances for properties outside London, depending upon surrounding area and availability of land, if the hospital comprised for example a converted period property, an assumption was made that if it relocated, a similar property would have to be acquired rather than a new site, given a new site could be located some distance from the existing hospital.

3.8 For the central London properties situated within Westminster, if the hospital was to relocate to another building, in order to successfully acquire it, the hospital would most likely be competing with both residential and commercial developers, given it likely any such building would be openly marketed to maximise interest and eventual price for the vendor.

3.9 Due to the strength of central London's office and residential markets, based on transactions, (either in the market or confidential) which local agents active in the market are aware of, developers are willing to pay between £400 and £650 per sq ft GIA for such buildings which offer conversion opportunities, depending upon the alternative buildings location.

3.10 The rate per sq ft a bidder would pay would also be influenced by the size of the alternative building. Higher rates per sq ft would be paid for smaller buildings, whereas the rate per sq ft paid for larger buildings would reduce, as the nature of the market results in bidders making a quantum allowance.

3.11 Notwithstanding the above, the areas within the rating list for the individual hospitals in some cases comprise basement accommodation. It is likely that this would not achieve the same level of price as would ground and upper floor accommodation.

3.12 As such, in our appraisal of the buildings, where basement accommodation is identified, we have reduced the rate applied by 50%, when compared with the rate applied to the ground and upper floor accommodation.

Employment Land

3.13 Alternative sites for which the alternative use would be employment land in general were identified for hospitals situated in urban and in some cases suburban areas.

3.14 Often the employment land would either comprise out of town commercial or industrial, which in general would benefit from good transport communications, with proximity to A roads and / or motorways.

3.15 The rate per acre for employment land varies between geographies, with higher land values for employment land in larger cities, with the highest rates for towns and cities situated within southern and south east England.

3.16 Where specific employment land comparables are readily available, surveyors within local offices have made reference to them. However in many case the nature of the employment land market is that quoting rates per acre for sites are not always openly advertised. Developers and property companies seeking employment land for development approach the land holders direct, following which sales terms are agreed, often on an off market basis.

3.17 As such, we provide within the appendices to this report comparables, where available, of specific employment land transactions. However in the absence of comparables, surveyors have consulted with DTZ's in house Industrial and Office Agency teams within each office, in order to gain an understanding of the prices being achieved for employment land within a specific geography.

Agricultural Land

3.18 Where hospital's are situated within suburban or rural locations, it is often the case that there is agricultural land within reasonable proximity to the hospital's existing location, providing a viable alternative site.

3.19 Whilst agricultural land prices range from £8,000 to £10,000 per acre, based on the latest Rural Land Figures published by the RICS, this does not mean that the land for the construction of a hospital would be available at this price.

3.20 In reality, if the hospital was to be relocated to an agricultural site, it is likely this would be on the edge of the existing built up area of a town or village. However agricultural land owners with sites located in such areas will recognise that whilst there may be a low chance in securing residential planning consent in the short term, in the medium / long term when there may be an expansion in dwelling numbers to the town, there is a chance that obtaining planning for residential may be achieved. This would result in a wind fall and uplift for the land owner, significantly exceeding agricultural land value many times over.

3.21 In towns where the population is growing and the residential market remains robust, it is likely that regional and national housebuilders will have been in contact with such land owners with a view to either acquiring existing land holdings, or negotiating an option agreement with the landowner which would be exercisable at a point when residential planning consent is granted.

3.22 Interest from housebuilders for edge of town agricultural land will undoubtedly increase price aspirations from land owners, even if town growth projections and planning policy indicate planning likelihood for residential to be 10 or more years away.

3.23 As such, rather than sell edge of town sites for a little more than agricultural value, it is likely such land owners will expect to receive a significant premium above agricultural land prices. They recognise that if they sell the land, they will lose any future uplift which may be achieved if residential planning consent is forthcoming. It is likely that if the amount offered does not reflect the required premium, a land owner would rather retain the land holding and pass it to the successors of their estate, given agricultural land is exempt from inheritance tax, with the hope that the successor would be able to secure the windfall uplift from residential planning consent.

3.24 The level of premium above agricultural land value sought will depend upon the achievable price per acre of residential land in the locality i.e the premium above agricultural value for land situated on the edge of an affluent high value town in the south east will be far greater than the premium a land owner would expect for land situated on the edge of a low value town in north west England.

3.25 In addition to seeking a premium for giving up any future windfall profit from the site being allocated for residential, it is likely that if a hospital approached a landowner having identified their site being suitable for a new health facility, the land owner would seek a greater price. They will make the assumption that as it is a private hospital seeking to acquire the site, they will be more willing to pay a higher price as the price paid will not be driven by profit and return, as would be the case of a developer / house builder.

3.26 It is agricultural land owners with sites on the edge of existing towns that will expect a greater premium to be paid. Whilst there could be cheaper agricultural land available further away from the edge of the town centre, it is unlikely that local planning authorities would wish for new development in the middle of greenbelt. There would also be issues relating to increased traffic, access, road and insufficient service / utilities capacity which could result in significant abnormal development costs to be incurred to be able to deliver an alternative health facility, which may significantly outweigh the lower cost for which land could be secured.

3.27 Taking note of the above, a range of agricultural prices have been applied, ranging from £100,000 per acre for land where residential land values would be in the order of £400,000 per acre assuming residential planning consent is in place, up to £500,000 per acre in high value areas in the south east, where residential land values in some cases exceed £2 million per acre.

Residential Land

3.28 In some towns there does not appear to be suitable employment sites within reasonable proximity, with agricultural land also situated too far away to be considered as a viable location.

3.29 In the event of no cheaper alternative sites being available, it is assumed that in the event of relocation a hospital would have to pay residential land prices.

3.30 It should be noted, that if residential land was available, the hospital would be competing with private sector developers and housebuiders, and would have to pay a price in excess of what such purchasers would be willing to pay in order to secure the site.

Affordable Housing and Developer Contributions

3.31 All residential land will be affected by local authority requirements in relation to affordable housing, s106 (s75 in Scotland) contributions and in some cases Community Infrastructure Levy (CIL). However the level of affordable housing and developer contributions sought varies between local planning authorities.

3.32 For hospitals where residential land would be the only realistic alternative for a new site, we have reviewed the affordable housing and developer contribution policy of the council who administers planning policy in that location. In general local planning authority requirements for affordable housing range from as low as 15% up to 50% in more affluent higher value locations.

3.33 Affordable housing tenure type also plays on important role in the impact this has on developer receipt. Social Rented housing was historically the most onerous type of affordable housing, with its achievable price when sold to a Registered Provider / Housing Association approximately 70% lower than the price which would be achieved for private non affordable tenure housing. Less onerous tenure types such as shared ownership or discounted rent would achieve sales prices of between 40% and 50% lower than private sale price.

3.34 However The Governments Affordable Housing Programme, which sets out the pot of money available for affordable housing up to 2015 will no longer provide any grant funding for social rented tenure housing, with the main affordable housing type for which grant will be provided being Affordable Rented Tenure. This type of affordable in general would achieve a price of between 40% and 50% lower than private sale price.

3.35 Historically social rented housing created a negative land receipt for developers. The costs they would incur in constructing the properties, together with ensuring the additional infrastructure was in place to service the property, would significantly exceed the price they would receive from the Registered Provider / Housing Association. This had a knock on effect on the level of land bid they would submit, with social housing often carrying a negative plot value. Developers would still expect to generate some profit from building social rented housing, resulting in the blended overall land price per acre offered being lower, to ensure minimum profit margins were achieved.

3.36 However, given the majority of affordable housing will now be Affordable Rent Tenure, the negative impact this will have to the developer will be less. As opposed to such affordable tenure creating a negative land plot value, as is the case of social rented tenure housing, the total cost of delivering such housing will broadly equal the revenue received. Land bids would still be lowered, but not as sharply as they would have been if the affordable housing tenure was social rented.

3.37 Notwithstanding the above, whilst local planning authorities will have target levels of affordable housing and developer contributions, recent guidance by the Homes and Communities Agency (HCA) and Planning Inspectorate requires local authorities to recognise that the target levels sought may impact upon the viability of a housing scheme. If the developer contributions are deemed to be too onerous, it may prevent a scheme from being built.

3.38 As such all local authorities will consider lowering developer contribution / affordable housing requirements, if the reduction is supported by an independent economic viability assessment which demonstrates the potential non viability of a scheme if the councils target levels of developer contributions are provided.

3.39 From our experience of such negotiations, councils are more willing to negotiate developer contributions / affordable housing numbers in areas where residential values are lower, as development viability is highly likely to be impacted. We are aware that in some cases, in low value areas where sales pace for houses is slow, councils are willing to agree to no affordable housing / developer contributions, to ensure schemes can be built and additional housing numbers delivered.

3.40 In areas of higher value housing, councils are in general more reluctant to negotiate marked reductions from affordable housing targets, due to the ability for sites in such areas to accommodate higher levels of affordable housing and developer contributions without having a negative impact upon viability.

3.41 Taking note of the above, we have considered council developer contributions and affordable housing requirement in light of gross prices for residential land in the respective council areas. In lower value areas, the deduction from gross land value for developer contributions is lower than the level deducted from gross land prices in more affluent residential areas.

4 Site Desktops

4.1 Following the above approach, we provide a summary of the individual hospital desktops. The table provides brief site specific commentary as to the assumptions made regarding the location and type of alternative site use and, in the case of residential land, whether any discounts to gross land value, have been applied for council requirements for developer contributions.

4.2 The land rates per acre we have applied do not take account of stamp duty, legal and agents fees. In reality, if an alternative site was to be acquired, these costs would have to be added to the land rates we have applied. Current stamp duty thresholds for land purchases are as follows:

- Up to £150,000 0%
- Over £150,000 to £250,000 1%
- Over £250,000 to £500,000 3%
- Over £500,000 4%

4.3 For the majority of the sites appraised, the stamp duty rate to be applied will be 4%.

4.4 We would estimate that agents and legal fees would equate to approximately 1.8% of site price.

4.5 In terms of VAT, our land figures are exclusive of VAT, with the assumption that no election to waive exemption to VAT has been made for the subject / alternative sites which have been appraised.

5 Planning

5.1 Within the original tender document, The Commission requested that we provide information and responses relating to planning which we provide as follows:

What are the main planning issues affecting the healthcare (hospital) sector in the UK?

Clarification / Context

This review and advice covers planning matters relating to the prospective development of new hospitals. Consideration is given to new-build, new-site hospital development as opposed to change of use of existing premises to hospital use, or to development of new facilities at existing or former hospital sites.

It is provided at a generic level as it does not relate to any particular proposals for hospital development. As illustrated below, a key point to note is that planning processes and decisions are influenced as much by proposal-specific, site-specific and location-specific factors as they are by the overarching planning system and policies.

The Planning System / Process

The UK Government sets out its policies on planning and development in the National Planning Policy Framework (NPPF), the content of which must be reflected by Local Planning Authorities (i.e. London boroughs, district councils) in their local plans and policies.

Local planning documents set out the policies to allocate land for particular uses and guide development in that locality. See Planning Policy section below.

Proposals for development require planning permission, which is sought via an application made to the relevant Local Planning Authority. An application maybe *outline,* whereby certain details are reserved for future submission and consideration, or *full,* whereby all details are submitted.

The application must be submitted with sufficient information to allow consideration of the development's impact and benefits. An application must include architectural drawings, details of design and access as well as specialist assessments covering matters such as flood risk, transport, heritage, trees and biodiversity etc . The application is subject of consultation with technical bodies and local people; and discussion between the applicant and the authority's planning officers.

The Local Authority considers the proposed development against national and local planning policies, and should grant planning permission where the proposal accords to these policies *unless material considerations indicate otherwise*. Under this latter provision a development proposal not in conformity to policy but which offers significant benefits may be granted planning permission. Conversely, a proposal seemingly in accordance with policy may be refused planning permission if particular impacts are deemed to outweigh the conformity to policy.

The determination of a planning application is made by elected Councillors either directly, in consideration of an officer's recommendation (major or contentious schemes), or through delegation of powers to officers to make the decision on Councillors' behalf (minor or uncontentious schemes).

Any planning application approved is likely to be subject to conditions and planning obligations (Section 106 Agreement (s106) or Community Infrastructure Levy (CIL)) which may require submission of further details, conformity to specified requirements or limitation, the provision of particular facilities or the payment of financial contributions to these. In the case of an outline planning permission, full details of the scheme must be submitted before any development may commence.

Timeframes

The Government sets target timeframes for the determination of major and minor planning applications of 13 and 8 weeks from the date of submission respectively. The timeframe is extended to 16 weeks if a formal Environmental Impact Assessment (EIA) is required. A hospital is likely to be a major scheme, although EIA will only be required if its impact is deemed likely to have a significant environmental effect.

The total timeframe for the planning process, however, is significantly longer than these target determination periods when the period for surveys and assessments, design development, pre-application discussions and consultations, and completion of a legal agreement etc are factored in. A typical timeframe for a major scheme would be in excess of one year from inception through to the grant of planning permission. Following the grant of planning permission a further time period must be allowed for the discharge of planning conditions (and potentially any legal challenge) before the development may be commenced.

Appeals

An applicant for planning permission may appeal to the Secretary of State for independent determination of its planning application in the event that either the local authority has refused planning permission or has not determined the planning application within the specified target timeframe (see above).

The appeal will then be heard by an independent inspector either in a public inquiry, informal hearing or via written representations. The applicant, the local authority and other parties (e.g. objectors) may participate in the appeal. The inspector then either grants or refuses planning permission.

In the event that the local authority grants planning permission for a development, there is no third-party (i.e. objectors') right of appeal. There is provision however for legal challenge to be made and a judicial review into the determination process to be undertaken, although the Government is currently seeking to prevent the misuse of the judicial review procedure as a tool of objection.

Planning Policy relevant to Hospitals

National Level

As a high-level strategic document, the NPPF makes no specific reference to hospital development. It does however strongly promote sustainable development, two key factors of which are social considerations, such as the health of people, and economic considerations, such as job creation and consumer choice. The NPPF requires the equal consideration of environmental factors such as the protection of ecological and heritage assets.

In headline terms, a hospital proposal may be readily supported by national planning policy given its social and economic benefits, but its acceptability will depend upon the balance of these factors against any local or environmental impacts, typically relating to matters such as transportation network capacity or impact on the landscape/habitats/species or heritage assets.

In the consideration of flood risk, hospitals are termed a 'more vulnerable' use. Such uses may only be located in areas which are either not at risk of flood or are at risk of flood only in extreme circumstances, unless there are no other suitable locations available when an exception test may be applied.

Local Level

At a local level (London borough or district council), planning policy documents may contain reference to hospital development. Unless there is a particular proposal for a hospital, then this is unlikely to be in the form of a specific hospital development policy, but more likely wrapped up in a general policy covering the protection and enhancement of community facilities (i.e. those relating to health, education, faith etc).

Certain locations and sites are however protected against development (for instance Green Belt land) or for particular types of development (for instance housing or employment uses). Such allocations do not necessarily prevent development or other uses coming forward, but this is only likely to be allowed where very special circumstances or material considerations to outweigh planning policy are demonstrated.

It is not considered that any local planning policy document will contain any policy that expressly restricts the development of new hospitals in general or in a particular location. Planning policies typically set criteria to help steer appropriate uses into appropriate locations. For instance: uses generating high volumes of movement are steered to locations accessible by a range of modes of transport; industrial uses are steered away from residential areas; and development in general is steered into urban areas and previously developed land thereby protecting natural environments.
There may also be local area or site-specific planning policy documents which provide detailed guidance on the type, form and design of development sought in a particular area. As with all policy, conformity to these provisions increases the likelihood of planning permission being granted. However, where those policy provisions are not sufficiently flexible to accommodate an unforeseen development type (e.g. a new hospital) they can be inadvertently restrictive to such a proposal.

As local planning policy documents are prepared and adopted through a public process, there is the opportunity to discuss and promote hospital needs and planning matters with the council during the preparation process. This may result in policy documents being adopted which more directly facilitate hospital development, however the process is relatively long term with consultations occurring over a two-three year period prior to the document taking effect.

Through this process, local authorities are able to set out specific local priorities or objectives for hospital development, but are perhaps more likely to keep this general through the use of strategic and criteria based policies. Ministerial Statements or Chief Planning Officer Letters (such as those issued recently in relation to schools and economic development) outlining the Government's support for such new provision may assist in supporting a new proposals where there is limited guidance in planning policy.

Planning Consideration of Hospital Proposals

When considering such policy criteria as set out above, a new hospital development may be supported in a location which:

- Is not protected as Green Belt or for its landscape or biodiversity value
- Is not susceptible to flooding
- Is *preferably* previously developed land and/or located within the urban area of a town or city
- Is accessible by a range of modes of transport including public transport and walking/cycling as well as the private car
- Is bounded by land uses compatible with a hospital i.e. commercial or institutional as opposed to industrial; residential where the impact of the hospital on neighbouring amenity is controlled.

The location of a new hospital on previously developed land in the urban area is stressed as preferable because local authorities are primarily planning for the provision of new additional housing and land for employment uses (i.e. typically office, industrial and warehousing). Any available sites of previously developed land are therefore most likely to be allocated or proposed for housing or employment development. Unless there is an established need or proposal for a new hospital it is unlikely that a previously developed site will be allocated for hospital development.

Any proposed hospital development is therefore likely to be at a site which is either greenfield, in an existing alternative use or is allocated for housing or employment development. The acceptability of the proposal will therefore depend upon its assessment against policy criteria, essentially the benefits of the hospital versus its local impact and the opportunity cost of loss of the site for an alternative use.

Certain planning policies carry greater weight than others. The strongest are those protecting the Green Belt, protected species and habitats. A hospital proposal contravening these policies may be unacceptable irrespective of the benefits of the hospital.

Whilst there is no planning 'needs test' for hospital proposals (i.e. a requirement to demonstrate the need for a new hospital or service in a particular area), the demonstration of local deficiency in quality, quantity or choice of existing provision is likely to be a consideration in support of a new hospital proposal. Whilst there are no planning grounds to refuse a hospital application on the basis that there are already sufficient alternative hospitals *per se*, in such circumstances the local authority may not accept that the benefits of a new hospital outweigh the preservation of that site for an alternative allocated use or its impact on the local area/environment.

Key arguments in support of a hospital development proposal are likely to relate to its socio-economic impact. A new hospital should enhance the health/wellbeing of its clients, should offer choice of supplier or service, should ease the burden or stretch on other suppliers (especially publicly funded) and improve performance through competition. Importantly, it also creates jobs (construction and operational), enhances skills/education and generates supply chain and local spend, all of which result in a significant economic benefit and may be used in justification of a hospital development proposal on land allocated for 'employment uses'.

Planning policies covering detailed local or design matters are also key to the acceptability of a development proposal (especially in the context of local/political decision making, see below). In particular, the scale and appearance of a hospital proposal and its perceived impact on the surrounding area, especially if this is undeveloped or includes conservation or heritage assets, such as a conservation area or listed building(s). Transportation, traffic generation and parking are also key factors at this local level.

The planning policies covering these factors are unlikely to preclude development outright but will say broadly that development will be allowed provided that it does not have a significant detrimental impact on local assets and infrastructure, or where mitigation and improvement measures are provided to ensure the impact is acceptable. The material submitted with the planning application must make such assessments and, through discussion with planning officers, propose appropriate mitigation and improvement measures.

Location Factors

Aside from the variation in planning policies produced by different local authorities there are no specified locations (i.e. any particular town or city) where hospital proposals are more or less likely to be granted planning permission.

However, each different location has its own specific constraints and opportunities which will influence the ease or difficulty with which planning permission may be achieved. Such factors include the evidence or perceived need for new facilities; the availability of development land; the need for alternative competing types of development; the available capacity of infrastructure and utilities; the prevalence of protected land, sites and buildings; and the attitude/engagement of local communities and politicians etc.

Whilst particular local circumstances must be considered in each case, as a general rule it follows that planning permission may be more difficult to achieve in locations which are relatively highly constrained, such as those which are either intensively developed (central London) or predominantly rural, particularly historical or where prevailing attitudes are resistant to change.

Political Factors

Political factors can have a significant impact on the planning process and outcome primarily because decisions are taken by locally elected Councillors who may respond to objections raised by local people (often irrespective of technical validity) ahead of the broader need or benefit of the development.

In certain locations, local people and groups are adept at using the local planning and political mechanisms to resist or frustrate development proposals. Typically this involves or results in large numbers of people objecting to proposals and lobbying politicians. A significant proportion of these objectors may be influenced by the objection within the community, rather than particular personal concerns about the development proposal.

Whilst objections may be genuinely made on grounds of traffic generation, design, impact on amenity, landscape, biodiversity and trees etc, these matters are also used to legitimise or justify a less rational objection usually driven by a fear of change or impact on the perception of a neighbourhood and value of properties.

Such objectors may have no objection to the principle of hospital development and may accept the wider need or benefit of additional hospital provision, but nevertheless object to prevent such development in a given location. The result on the development proposal is a protracted and more costly planning process involving increased consultation, design development and mitigation proposals.

Further Site Specific Research

As advised, the above advice is given at a general level, whereas substantial factors that influence any given planning proposal are specific to the nature of the development and its location.

As a secondary piece of work, DTZ may be commissioned to review planning matters relevant to particular hospital development and/or specific locations. We may also research recent planning applications and appeals regarding hospital development to provide examples and illustration of the points discussed above.

6 Disclaimer

6.1 The contents of this report do not constitute a valuation, in accordance with the appropriate sections of the Valuation Standards ("VS") and United Kingdom Valuation Standards ("UKVS") contained within the RICS Valuation – Professional Standards 2012 (the "Red Book"). This report is addressed to The Competition Commission only and its contents should not be reproduced in part or in full without our prior consent.

6.2 Given the review of the sites was on a "desktop basis" we draw your attention to the following caveats, which were originally set out within the tender we provided to The Commission.

"1. This is a "desktop" overview provided on a restricted fee basis and for guidance only. It is not intended to be and must not be relied upon as a substitute for the valuation conclusions that would be reached by DTZ following a valuation commissioned and carried out on DTZ's standard terms and conditions on a fee basis. Such conclusions may well be materially different.

2. We have not inspected the properties nor have we undertaken full verification or research. The opinions detailed above are totally dependent on the adequacy and accuracy of the information supplied and the assumptions made. It should be noted that should these prove to be incorrect, the accuracy of this opinion will be affected.

3. The contents of this letter are confidential to the addressee for the specific purpose to which they refer and are for their use only. Neither this letter nor any part thereof may be reproduced or referred to in any document, circular or statement, nor may its contents, or part thereof be disclosed orally or otherwise to a third party.

4. We have not been advised of the purchase price of the property. If instructed to undertake a valuation of the property we will be required to investigate any recent marketing of the property. Any recent marketing is likely to provide the best evidence as to the current Market Value of the asset and therefore our findings following such an investigation may have a material impact on the Market Value reported. If a purchase price has been agreed we recommend that we are advised of it as soon as possible so we can reconsider our desk top opinion.

5. If any circumstances surrounding this property change between the issue of this desktop opinion of value and the completion of a formal valuation report (such as a change in the purchase price) we must be advised of such a change as soon as possible so we can reconsider our desktop opinion."

7 Confidentiality and Disclosure

7.1 In accordance with proper practice, I must state that the contents of this report and the appendices are confidential to you for the specific purpose to which it refers and is for your use only. Consequently, no responsibility is accepted to any other party in respect of the whole or any part of its contents. Before this Report, or any part thereof, is reproduced or referred to, in any document, circular or statement, and before its contents, or any part thereof, are disclosed orally or otherwise to a third party, DTZ's written approval as to the form and context of such publication or disclosure must first be obtained.

Derek Nesbitt MRICS

Director

RICS Registered Valuer

For and on behalf of

DTZ Debenham Tie Leung